December 2, 2002

Mr. J. B. Beasley
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. MB3817 AND MB3818)

Dear Mr. Beasley:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 158 to Facility Operating License No. NPF-2 and Amendment No. 149 to Facility Operating License No. NPF-8 for the Joseph M. Farley Nuclear Plant, Units 1 and 2. The amendments consists of changes to the Operating License in response to your application dated November 7, 2001, as supplement by letter dated October 18, 2002.

The amendments revise the operating licenses by replacing the license conditions concerning spent-fuel cask lifting devices with a commitment to the requirements in American National Standards Institute N14.6-1978, “Standard for Special Lifting Devices for Shipping Containers Weighing 10,000 lbs (4500 kg) or More for Nuclear Materials,” in the Updated Final Safety Analysis Report.

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/

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. 158 to NPF-2
2. Amendment No. 149 to NPF-8
3. Safety Evaluation

cc w/encls: See next page

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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. 158
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 November 7, 2001, as supplemented by letter dated October 18, 2002, 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 hereby amended by page changes to the license itself.

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: Facility Operating License Pages

Date of Issuance: December 2, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 158

TO FACILITY OPERATING LICENSE NO. NPF-2

DOCKET NO. 50-348

Replace the following pages of the Operating License with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove	Insert
1 thru 9	1 thru 9

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. 149
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 November 7, 2001, as supplemented by letter dated October 18, 2002, 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 hereby amended by page changes to the license itself.

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: Operating License Pages

Date of Issuance: December 2, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 149

TO FACILITY OPERATING LICENSE NO. NPF-8

DOCKET NO. 50-364

Replace the following pages of the Operating License with the attached revised pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change.

Remove	Insert
1 thru 8	1 thru 8

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 158 TO FACILITY OPERATING LICENSE NO. NPF-2

AND AMENDMENT NO. 149 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 November 7, 2001, as supplemented by letter dated October 18, 2002, the Southern Nuclear Operating Company, Inc. et al., submitted a request for changes to the Joseph M. Farley Nuclear Plant (FNP), Units 1 and 2, Operating Licenses. The requested changes would change the operating licenses by replacing license conditions concerning spent fuel cask lifting devices with a commitment to the requirements in American National Standards Institute (ANSI) N14.6-1978, "Standard for Special Lifting Devices for Shipping Containers Weighing 10,000 lbs (4500 kg) or More for Nuclear Materials," in the Updated Final Safety Analysis Report (UFSAR). The October 18, 2002, letter provided clarifying information that did not change the November 7, 2001, application nor the initial proposed no significant hazards consideration determination.

2.0 REGULATORY EVALUATION

The licensee proposes to replace License Condition 2.C.3.f. in the Unit 1 operating license and License Condition 2.C.4 in the Unit 2 operating license with a commitment to the requirements in ANSI N14.6 in the UFSAR. The license conditions require U.S. Nuclear Regulatory Commission (NRC) approval of the lifting devices attaching spent fuel casks to the spent fuel cask crane prior to using the spent fuel cask crane for moving spent fuel casks. The license conditions resulted from a NRC staff review documented in the Safety Evaluation Report (SER) for FNP, Supplement 2, dated October 1976, that evaluated the fuel handling systems' compliance with the requirements of Auxiliary and Power Conversion Systems Branch (APCSB) Branch Technical Position APCSB 9-1, "Overhead Handling Systems for Nuclear Power Plants." In the SER, the NRC staff noted that the design of the devices for lifting the spent fuel cask had not been provided and that a condition to the license would be added to require submission of a report describing the design of the lifting devices for NRC approval prior to using the spent fuel cask crane to handle spent fuel casks.

Subsequent to adding the license conditions, the NRC issued NUREG-0612, "Control of Heavy Loads at Nuclear Power Plants," which describes alternative approaches for the control of heavy loads. Additionally, NUREG-0612 endorsed the use of ANSI N14.6-1978, "Standard for Special Lifting Devices for Shipping Containers Weighing 10,000 lbs (4500 kg) or More for Nuclear Materials," in the design and inspection of special lifting devices. Guidelines in

Section 5.1 of NUREG-0612 provide a defense-in-depth approach to controlling the handling of heavy loads near spent fuel and safe shutdown equipment.

Sections of NUREG-0612 applicable to the proposed amendment include:

1. Section 1.2 defines special lifting devices as:

   A lifting device that is designed specifically for handling a certain load or loads, such as the lifting rigs for the reactor vessel head or vessel internals, or the lifting device for a spent fuel cask.

2. Section 5.1.1(4) states that:

   Special lifting devices should satisfy the guidelines of ANSI N14.6-1978, "Standard for Special Lifting Devices for Shipping Containers Weighing 10,000 lbs (4500 kg) or More for Nuclear Materials." This standard should apply to all special lifting devices which carry heavy loads in areas as defined above. For operating plants certain inspections and load tests may be accepted in lieu of certain material requirements in the standard. In addition, the stress design factor stated in Section 3.2.1.1 of ANSI N14.6 should be based on the combined maximum static and dynamic loads that could be imparted on the handling device based on characteristics of the crane which will be used. This in lieu of the guideline in Section 3.2.1.1 of ANSI N14.6 which bases the stress design factor on only the weight (static load) of the load and of the intervening components of the special handling device.

3. Section 5.1.2(1) states that:

   The overhead crane and associated lifting devices used for handling heavy loads in the spent fuel pool area should satisfy the single-failure-proof guidelines of Section 5.1.6 of this report. [The NRC staff concluded in SER for FNP, Supplement 2, dated October 1976, that the spent fuel cask crane met the single-failure criteria in Branch Technical Position APCSB 9-1, "Overhead Handling Systems for Nuclear Power Plants."]

4. Section 5.1.6(1)(a) states:

   Special lifting devices that are used for heavy loads in the area where the crane is to be upgraded should meet ANSI N14.6 1978, "Standard for Special Lifting Devices for Shipping Containers Weighing 10,000 lbs (4500 kg) or More for Nuclear Materials," as specified in Section 5.1.1(4) of this report except that the handling device should also comply with Section 6 of ANSI N14.6-1978. If only a single lifting device is provided instead of dual devices, the special lifting device should have twice the design safety factor as required to satisfy the guidelines of Section 5.1.1(4). However, loads that have been evaluated and shown to satisfy the evaluation criteria of Section 5.1 need not have lifting devices that also comply with Section 6 of ANSI 14.6.

3.0 EVALUATION

The licensee is requesting the removal of license condition 2.C.3.f. in the Unit 1 operating license and license condition 2.C.4 in the Unit 2 operating license based on making a

commitment to the requirements in ANSI N14.6 which will be documented in the UFSAR. The licensee has not submitted a specific spent fuel cask lifting device design for review by the NRC staff. The NRC staff review is limited to verifying that the licensee is adopting a design that meets the guidelines of NUREG-0612.

License Condition 2.C.3.f. in the Unit 1 operating license reads:

> Southern Nuclear shall not use the spent fuel cask crane for the purpose of moving spent fuel casks prior to submission and approval by the commission of the design of the lifting devices which attach the spent fuel cask to the crane.

License Condition 2.C.4 in the Unit 2 operating license reads:

> Southern Nuclear shall not use the spent fuel cask crane for the purpose of moving spent fuel casks prior to approval by the NRC of the lifting devices which attach the spent fuel cask to the crane.

The licensee will replace the license conditions with a commitment in Section 9.1.4.2.2.5 of the UFSAR which reads:

> The special lift devices which are used to attach the spent fuel cask to the spent fuel cask crane comply with the design, fabrication, testing, maintenance, and quality assurance requirements of ANSI N14.6, as clarified by NUREG-0612, "Control of Heavy Loads at Nuclear Power Plants," without exception. This requirement will be reflected in procurement documents for spent fuel cask crane special lift devices.

By making this commitment, the licensee will ensure that the spent fuel cask lifting devices will comply with the design, fabrication, testing, maintenance, and quality assurance requirements of ANSI N14.6, as clarified by the appropriate sections of NUREG-0612. Relevant sections of NUREG-0612 which help clarify the guidelines for spent fuel cask lifting devices include:

- Section 5.1.1(4) of NUREG-0612: "... the stress design factor stated in Section 3.2.1.1 of ANSI N14.6 should be based on the combined maximum static and dynamic loads that could be imparted on the handling device based on characteristics of the crane which will be used. This in lieu of the guideline in Section 3.2.1.1 of ANSI N14.6 which bases the stress design factor on only the weight (static load) of the load and of the intervening components of the special handling device."

- Section 5.1.2(1) of NUREG-0612: "The overhead crane and associated lifting devices used for handling heavy loads in the spent fuel pool area should satisfy the single-failure-proof guidelines of Section 5.1.6 of this report."

- Section 5.1.6(1)(a) of NUREG-0612: "Special lifting devices that are used for heavy loads in the area where the crane is to be upgraded should meet ANSI N14.6-1978, "Standard for Special Lifting Devices for Shipping Containers Weighing 10,000 lbs (4500 kg) or More for Nuclear Materials," as specified in Section 5.1.1(4) of this report except that the handling device should also comply with Section 6 of ANSI N14.6-1978. If only a single lifting device is provided instead of dual devices, the special lifting device should have twice the design safety factor as required to satisfy the guidelines of

> Section 5.1.1(4). However, loads that have been evaluated and shown to satisfy the evaluation criteria of Section 5.1 need not have lifting devices that also comply with Section 6 of ANSI 14.6."

In NUREG-0612, the NRC identified design, fabrication, testing, maintenance, and quality assurance guidelines for special lifting devices that would be acceptable to the NRC staff. With the inclusion of the above commitment, the licensee is committing to meet the guidelines of NUREG-0612. Therefore, the proposed removal of license condition 2.C.3.f in the Unit 1 operating license and license condition 2.C.4 in the Unit 2 operating license is acceptable, and the NRC staff finds the licensee's proposed replacement of License Condition 2.C.3.f in Operating License NPF-2 and License Condition 2.C.4 in Operating License NPF-8 with a commitment in Section 9.1.4.2.2.5 of the UFSAR to be 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.

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 [67 FR 66013]. 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: D. Cullison, SPLB/DSSA

Date: December 2, 2002

Joseph M. Farley Nuclear Plant

cc:

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