December 28, 1994

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

SUBJECT: ISSUANCE OF AMENDMENT NO. 111 TO FACILITY OPERATING LICENSE NO. NPF-2 AND AMENDMENT NO. 102 TO FACILITY OPERATING LICENSE NO. NPF-8 REGARDING CHLORINE DETECTION SYSTEMS - JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2 (TAC NOS. M90690 AND M90691)

Dear Mr. Morey:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 111 to Facility Operating License No. NPF-2 and Amendment No. 102 to Facility Operating License No. NPF-8 for the Joseph M. Farley Nuclear Plant, Units 1 and 2. The amendments change the Technical Specifications (TS)in response to your submittal dated October 20, 1994.

The amendments delete the requirements for the control room chlorine detection system from the TS and the associated Bases Sections. This request is based on the fact that all stored gaseous chlorine has been removed from the plant site except for containers having an inventory of 150 pounds or less.

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

Sincerely,

(Original Signed By)

Byron L. Siegel, Senior Project Manager
Project Directorate II-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-348, 50-364

Enclosures: 1. Amendment No. 111 to NPF-2
2. Amendment No. 102 to NPF-8
3. Safety Evaluation

cc w/enclosures: See next page

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AMENDMENT NO. 111 TO FACILITY OPERATING LICENSE NO. NPF-2 - FARLEY, UNIT 1
AMENDMENT NO. 102 TO FACILITY OPERATING LICENSE NO. NPF-8 - FARLEY, UNIT 2

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

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

DOCKET NO. 50-348

JOSEPH M. FARLEY NUCLEAR PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 111
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 20, 1994, 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. 111 , 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

William H. Bateman, Director
Project Directorate II-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: December 28, 1994

ATTACHMENT TO LICENSE AMENDMENT NO. 111

TO FACILITY OPERATING LICENSE NO. NPF-2

DOCKET NO. 50-348

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

Remove Pages	Insert Pages
IV	IV
3/4 3-52	3/4 3-52
B 3/4 3-3	B 3/4 3-3

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

CHLORINE DETECTION SYSTEMS

This specification deleted.

3/4.3.3.3 SEISMIC INSTRUMENTATION

The OPERABILITY of the seismic instrumentation ensures that sufficient capability is available to promptly determine the magnitude of a seismic event and evaluate the response of those features important to safety. This capability is required to permit comparison of the measured response to that used in the design basis for the facility to determine if plant shutdown is required pursuant to Appendix "A" of 10 CFR Part 100. The instrumentation is consistent with the recommendations of Regulatory Guide 1.12, "Instrumentation for Earthquakes," April 1974.

3/4.3.3.4 METEOROLOGICAL INSTRUMENTATION

The OPERABILITY of the meteorological instrumentation ensures that sufficient meteorological data is available for estimating potential radiation doses to the public as a result of routine or accidental release of radioactive materials to the atmosphere. This capability is required to evaluate the need for initiating protective measures to protect the health and safety of the public and is generally consistent with the recommendations of Regulatory Guide 1.23, "Onsite Meteorological Program," February 1972.

3/4.3.3.5 REMOTE SHUTDOWN INSTRUMENTATION

The OPERABILITY of the remote shutdown instrumentation ensures that sufficient capability is available to permit shutdown and maintenance of HOT STANDBY of the facility from locations outside of the control room. This capability is required in the event control room habitability is lost and is consistent with General Design Criteria 19 of 10 CFR 50.

3/4.3.3.6 CHLORINE DETECTION SYSTEMS

This specification deleted.

3/4.3.3.7 HIGH ENERGY LINE BREAK ISOLATION SENSORS

The high energy line break isolation sensors are designed to mitigate the consequences of the discharge of steam and/or water to the affected room and other lines and systems contained therein. In addition, the sensors will initiate signals that will alert the operator to bring the plant to a shutdown condition.

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

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

DOCKET NO. 50-364

JOSEPH M. FARLEY NUCLEAR PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 102
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 20, 1994, 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.102 , 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

Byron F. Siegel for

William H. Bateman, Director
Project Directorate II-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: December 28, 1994

ATTACHMENT TO LICENSE AMENDMENT NO. 102

TO FACILITY OPERATING LICENSE NO. NPF-8

DOCKET NO. 50-364

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

Remove Pages	Insert Pages
IV	IV
3/4 3-52	3/4 3-52
B 3/4 3-3	B 3/4 3-3

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

CHLORINE DETECTION SYSTEMS

This specification deleted.

3/4.3.3.3 SEISMIC INSTRUMENTATION

The OPERABILITY of the seismic instrumentation ensures that sufficient capability is available to promptly determine the magnitude of a seismic event and evaluate the response of those features important to safety. This capability is required to permit comparison of the measured response to that used in the design basis for the facility to determine if plant shutdown is required pursuant to Appendix "A" of 10 CFR Part 100. The instrumentation is consistent with the recommendations of Regulatory Guide 1.12, "Instrumentation for Earthquakes," April 1974.

3/4.3.3.4 METEOROLOGICAL INSTRUMENTATION

The OPERABILITY of the meteorological instrumentation ensures that sufficient meteorological data is available for estimating potential radiation doses to the public as a result of routine or accidental release of radioactive materials to the atmosphere. This capability is required to evaluate the need for initiating protective measures to protect the health and safety of the public and is generally consistent with the recommendations of Regulatory Guide 1.23, "Onsite Meteorological Program," February 1972.

3/4.3.3.5 REMOTE SHUTDOWN INSTRUMENTATION

The OPERABILITY of the remote shutdown instrumentation ensures that sufficient capability is available to permit shutdown and maintenance of HOT STANDBY of the facility from locations outside of the control room. This capability is required in the event control room habitability is lost and is consistent with General Design Criteria 19 of 10 CFR 50.

3/4.3.3.6 CHLORINE DETECTION SYSTEMS

This specification deleted.

3/4.3.3.7 HIGH ENERGY LINE BREAK ISOLATION SENSORS

The high energy line break isolation sensors are designed to mitigate the consequences of the discharge of steam and/or water to the affected room and other lines and systems contained therein. In addition, the sensors will initiate signals that will alert the operator to bring the plant to a shutdown condition.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 111 TO FACILITY OPERATING LICENSE NO. NPF-2

AND AMENDMENT NO. 102 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 October 20, 1994, Southern Nuclear Operating Company (SNC or the licensee) proposed amendments to the Joseph M. Farley Nuclear Plant, Units 1 and 2 Technical Specifications (TS). The proposed amendments would delete the requirements for the control room chlorine detection system from the TS and associated Bases Sections. This request is based on the fact that all stored gaseous chlorine has been removed from the plant site except for containers having an inventory of 150 pounds or less.

2.0 EVALUATION

The chlorine detection system was originally installed to protect the control room operators against the accidental releases of gaseous chlorine stored on-site. SNC has stated in its submittal that all stored gaseous chlorine, except for containers having an inventory of 150 pounds or less, have been removed from the plant site and replaced by chlorine compounds in alternate forms, which maintain the desired level of dissolved chlorine in treated water, but preclude the need for storage of large quantities of gaseous chlorine. SNC stated that the small amount of gaseous chlorine (stored in containers having an inventory of 150 pounds or less) will be kept in a chlorination house located more than 100 meters from the control room and its fresh air inlets.

SNC also stated that the removal of the gaseous chlorine from the site and the chlorine detection system is consistent with the guidance contained in Regulatory Guide (RG) 1.95, " Protection of Nuclear Power Plant Control Room Operators Against an Accidental Chlorine Release," dated February 1975. This RG permits gaseous chlorine to be stored on-site in containers having a chlorine inventory of 150 pounds or less provided: (1) it is stored more than 100 meters from the control room and its fresh air inlets, (2) the capability for manual isolation of the control room is provided, and (3) the containers, if multiple containers are present, are not interconnected in a manner such that failure of a single container will cause release from any of the others. Although SNC did not reference the latest version of this RG (RG 1.95, Revision 1, dated January 1977) the guidance pertaining to on-site storage of gaseous chlorine is the same in both the original and revised version.

When considering the removal of the chlorine detection system from the Farley site, SNC committed to and followed the guidance contained in RG 1.78, "Assumptions for Evaluating the Habitability of a Nuclear Power Plant Control Room During a Postulated Hazardous Chemical Release," dated June 1974. This RG provides guidance for protection of the control room environment against hazardous chemicals stored both on-site and off-site. Regulatory Guide 1.78 states that hazardous chemicals stored or situated at distances greater than five miles need not be considered because atmospheric dispersion will dilute and disperse the plume such that there should be sufficient time for the control room operators to take corrective action. In addition, with regard to on-site storage of gaseous chlorine in quantities of 150 pounds or less in containers, SNC has committed to follow the guidance contained in RG 1.95, as previously discussed. For distances less than five miles, the licensee evaluated the gaseous chlorine shipped by barge, truck, and rail and determined there were no regularly scheduled shipments by any of these means of transportation. Based on an estimated frequency and size of shipments, SNC evaluated the effect on plant operation of potential gaseous chlorine release accidents by either barge, truck or railroad at the closest point of approach to the plant, and concluded that the safe operation of the plant would not be affected. The licensee also has determined that no gaseous chlorine is processed at, stored at, or transported to or from any of the industrial facilities located within five miles of the plant, therefore, no hazard associated with chlorine exists that would affect safe plant operation.

3.0 SUMMARY

The NRC staff evaluated the SNC request to delete the chlorine detection instrumentation and concluded the following:

1. The licensee's proposal is consistent with the guidance contained in RG 1.95 with regard to the location and quantity of gaseous chlorine permitted to be stored on site without providing instrumentation.

2. The licensee evaluated and confirmed, in accordance with the guidance contained in RG 1.78, that there are no identified chlorine hazards to the plant posed either by commercial facilities or the infrequent transportation of chlorine by barge, truck, or railroad, within five miles of the plant.

On the bases of the above evaluation, the NRC staff has determined that the proposed amendments are acceptable. In addition, the staff has determined that the proposed changes to the TS Bases sections, which are consist with the proposed TS changes, are also 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 amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes the Surveillance Requirements. 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 (59 FR 60386). 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 amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: B. Siegel

Date: December 28, 1994