

October 6, 1993

Docket Nos. 50-424  
and 50-425

Mr. C. K. McCoy  
Vice President - Nuclear  
Vogtle Project  
Georgia Power Company  
P. O. Box 1295  
Birmingham, Alabama 35201

Distribution

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D.Hagan MNBB4702  
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E.Merschhoff, RII

Dear Mr. McCoy:

SUBJECT: ISSUANCE OF AMENDMENTS - VOGTLE NUCLEAR GENERATING PLANT,  
UNITS 1 AND 2 (TAC NOS. M84159 AND M84160)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 69 to Facility Operating License NPF-68 and Amendment No. 48 to Facility Operating License NPF-81 for the Vogtle Nuclear Generating Plant, Units 1 and 2. The amendments consist of changes to the Technical Specifications (TS) in response to your application dated July 31, 1992, as supplemented January 22 and July 27, 1993.

The amendments add a new TS 3/4.7.1.6, entitled "Main Feedwater Isolation Systems," and associated Bases. The TS addition incorporates a Limiting Condition for Operation to require that the main feedwater isolation and regulating valves (MFIVs and MFRVs) and their respective bypass valves (BFIVs) be operable when the reactor is in Modes 1 or 2 (unless the MFIV, MFRV, or associated BFIV is closed and deactivated).

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  
Darl S. Hood, Project Manager  
Project Directorate II-3  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosures:

- 1. Amendment No. 69 to NPF-68
- 2. Amendment No. 48 to NPF-81
- 3. Safety Evaluation

cc w/enclosures:  
See next page

OFFICE	PDII-3/VA	PDII-3/PM	OTSB	OGC	PDII-3/DH
NAME	L. BERRY	D.HOOD	C.GRIMES	E.HOLLER	D.MATTHEWS
DATE	9/2/93	9/7/93	9/16/93	9/24/93	10/6/93

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Mr. C. K. McCoy  
Georgia Power Company

Vogtle Electric Generating Plant

cc:

Mr. J. A. Bailey  
Manager - Licensing  
Georgia Power Company  
P. O. Box 1295  
Birmingham, Alabama 35201

Harold Reheis, Director  
Department of Natural Resources  
205 Butler Street, SE. Suite 1252  
Atlanta, Georgia 30334

Mr. J. B. Beasley  
General Manager, Vogtle Electric  
Generating Plant  
P. O. Box 1600  
Waynesboro, Georgia 30830

Attorney General  
Law Department  
132 Judicial Building  
Atlanta, Georgia 30334

Regional Administrator, Region II  
U. S. Nuclear Regulatory Commission  
101 Marietta Street, NW., Suite 2900  
Atlanta, Georgia 30323

Mr. Alan R. Herdt  
Project Branch #3  
U. S. Nuclear Regulatory Commission  
101 Marietta Street, NW. Suite 2900  
Atlanta, Georgia 30323

Office of Planning and Budget  
Room 615B  
270 Washington Street, SW.  
Atlanta, Georgia 30334

Mr. Dan H. Smith, Vice President  
Power Supply Operations  
Oglethorpe Power Corporation  
2100 East Exchange Place  
Tucker, Georgia 30085-1349

Office of the County Commissioner  
Burke County Commission  
Waynesboro, Georgia 30830

Charles A. Patrizia, Esquire  
Paul, Hastings, Janofsky & Walker  
12th Floor  
1050 Connecticut Avenue, NW.  
Washington, DC 20036

Mr. J. D. Woodard  
Senior Vice President -  
Nuclear Operations  
Georgia Power Company  
P. O. Box 1295  
Birmingham, Alabama 35201

Arthur H. Dobby, Esquire  
Troutman Sanders  
NationsBank Plaza  
600 Peachtree Street, NE.  
Suite 5200  
Atlanta, Georgia 30308-2216

Resident Inspector  
U. S. Nuclear Regulatory Commission  
P. O. Box 572  
Waynesboro, Georgia 30830



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

GEORGIA POWER COMPANY

OGLETHORPE POWER CORPORATION

MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA

CITY OF DALTON, GEORGIA

VOGTLE ELECTRIC GENERATING PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 69  
License No. NPF-68

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment to the Vogtle Electric Generating Plant, Unit 1 (the facility) Facility Operating License No. NPF-68 filed by the Georgia Power Company, acting for itself, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the licensees), dated July 31, 1992, as supplemented January 22 and July 27, 1993, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as 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 set forth in 10 CFR Chapter I;
  - D. The issuance of this 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.

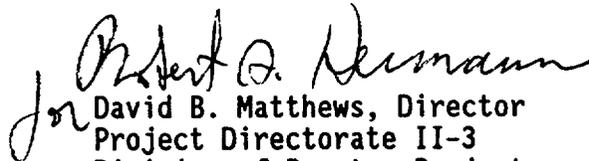
2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-68 is hereby amended to read as follows:

Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 69 , and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. GPC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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

FOR THE NUCLEAR REGULATORY COMMISSION



David B. Matthews, Director  
Project Directorate II-3  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment:  
Technical Specification  
Changes

Date of Issuance: October 6, 1993



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

GEORGIA POWER COMPANY

OGLETHORPE POWER CORPORATION

MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA

CITY OF DALTON, GEORGIA

VOGTLE ELECTRIC GENERATING PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 48  
License No. NPF-81

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment to the Vogtle Electric Generating Plant, Unit 2 (the facility) Facility Operating License No. NPF-81 filed by the Georgia Power Company, acting for itself, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the licensees), dated July 31, 1992, as supplemented January 22 and July 27, 1993, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as 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 set forth in 10 CFR Chapter I;
  - D. The issuance of this 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 Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-81 is hereby amended to read as follows:

Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 48 , and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. GPC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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

FOR THE NUCLEAR REGULATORY COMMISSION



David B. Matthews, Director  
Project Directorate II-3  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment:  
Technical Specification  
Changes

Date of Issuance: October 6, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 69

FACILITY OPERATING LICENSE NO. NPF-68

DOCKET NO. 50-424

AND

TO LICENSE AMENDMENT NO. 48

FACILITY OPERATING LICENSE NO. NPF-81

DOCKET NO. 50-425

Add the following pages to the Appendix "A" Technical Specifications with the enclosed pages. These pages are identified by Amendment number and contain vertical lines indicating the areas of change.

Remove Pages

Insert Pages

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3/4 7-9a  
B 3/4 7-2a

## PLANT SYSTEMS

### MAIN STEAM LINE ISOLATION VALVES

#### LIMITING CONDITION FOR OPERATION

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3.7.1.6 Four main feedwater isolation valves (MFIVs), four main feedwater regulating valves (MFRVs), and associated bypass valves shall be OPERABLE.

APPLICABILITY:\* MODES 1 AND 2, except when the MFIV, MFRV or associated bypass valve is closed and deactivated.

#### ACTION:

- a. With one MFIV, MFRV, or associated bypass valve inoperable in one or more feedwater lines, operation may continue provided each inoperable valve is restored to OPERABLE status or closed in each feedwater line within 72 hours. Otherwise be in HOT STANDBY within the next 6 hours.
- b. With no isolation system (each system consisting of a MFIV and its associated bypass valve or a MFRV and its associated bypass valve) OPERABLE\*\* in any one feedwater line, restore at least one isolation system in each feedwater line to OPERABLE status within 4 hours or be in HOT STANDBY within the next 6 hours.

#### SURVEILLANCE REQUIREMENTS

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4.7.1.6(a) Each MFIV, BFIV, MFRV and BFRV shall be demonstrated OPERABLE by verifying full closure within 5 seconds when tested pursuant to Specification 4.0.5. The provisions of 4.0.4 are not applicable for entry into MODE 2.

4.7.1.6(b) For each inoperable valve, verify that it is closed or isolated once per 7 days.

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\*Each MFIV, MFRV, or associated bypass valve shall be treated independently.

\*\*An OPERABLE main feedwater isolation system may consist of inoperable valves provided the inoperable valves are maintained closed and deactivated.

## PLANT SYSTEMS

### BASES

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#### 3/4.7.1.6 AUXILIARY FEEDWATER SYSTEM

Isolation of the main feedwater (MFW) system is provided when required to mitigate the consequences of a steam line break, feedwater line break, feedwater controller malfunction, steam generator tube rupture or small break loss of coolant accident. Redundant isolation capability is provided by two isolation systems on each steam line consisting of the main feedwater isolation valve (MFIV) and its associated bypass valve (BFIV) and the main feedwater regulating valve (MFRV) and its associated bypass valve (BFRV). The safety function of these valves is fulfilled when closed. Therefore, a feedwater isolation system may be considered OPERABLE if its respective valves are OPERABLE or if they are maintained in a closed and deactivated position. The 72 hour completion time to either restore or close an inoperable valve takes into account the redundancy afforded by the remaining OPERABLE valves and the low probability of an event occurring that would require isolation of the MFW flow paths during this time period. The 7 day completion time to verify that an inoperable valve is closed or isolated is reasonable based on valve status indications available in the control room, and other administrative controls to ensure the valves are closed or isolated.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 69 TO FACILITY OPERATING LICENSE NPF-68  
AND AMENDMENT NO. 48 TO FACILITY OPERATING LICENSE NPF-81

GEORGIA POWER COMPANY, ET AL.

VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2

DOCKET NOS. 50-424 AND 50-425

1.0 INTRODUCTION

By letter dated July 31, 1992, as supplemented January 22 and July 27, 1993, Georgia Power Company, et al. (the licensee) proposed license amendments to change the Technical Specifications (TS) for Vogtle Electric Generating Plant (Vogtle), Units 1 and 2. The proposed changes add TS 3/4.7.1.6 which would provide a limiting condition for operation (LCO) and surveillance requirements (SR) for the main feedwater (MFW) isolation system. On September 28, 1992, the staff issued NUREG-1431, Revision 0, the improved standard technical specifications (STS) for Westinghouse plants. Subsequently, the licensee, by letter dated January 22, 1993, updated the proposed TS to be consistent with the wording of the improved STS which included a TS for the MFW isolation system. The proposed specification requires that the MFW isolation and regulating valves, and their associated bypass valves be operable or isolated when the reactor is in MODES 1 or 2. An associated BASES section (B 3/4.7.1.6) was also included in the proposed revision.

The ACTION statements, as proposed in the January 22, 1993, submittal, were inconsistent with the APPLICABILITY in that they required the plant to be in MODE 4 if the system was inoperable for a given length of time. Therefore, by letter dated July 27, 1993, the licensee revised the ACTION statements to require the plant to be in MODE 3 whenever the LCO was not met for the specified times. This would put the plant in a mode where the LCO would no longer be applicable.

The July 27, 1993, letter provided a minor change to improve consistency with the improved STS and did not change NRC's proposed finding of no significant hazards consideration determination.

2.0 EVALUATION

A main feedwater isolation valve (MFIV) and an associated main feedwater isolation bypass valve (BFIV) are provided for each of the MFW lines to the four steam generators. Each of these lines contain an upstream MFW regulating valve (MFRV) and an associated MFW bypass regulating valve (BFRV). The MFW line to each steam generator can be isolated by the closure of either an MFIV or MFRV and its associated bypass valve. These valves provide redundant

isolation for each MFW line. All of these valves receive automatic isolation signals from the engineered safety features actuation system (ESFAS) which is included in the instrumentation section of the plant TS.

The safety-related function of these valves is to provide isolation of MFW flow to the steam generators in the event of certain accidents or transients. The current Vogtle TS do not have a specification for these valves except as they relate to the operability of the ESFAS. Because these valves are a part of the primary success path for mitigation of an accident, they should be specifically included in the plant TS. The proposed TS change would correct this oversight.

The proposed TS requires the valves to be OPERABLE in MODES 1 and 2, except when the MFIV, MFRV, or associated bypass valve is closed and deactivated. The modes are acceptable because they are in agreement with the existing Vogtle TS for the MFW isolation function of the ESFAS. In these modes, there is significant energy in the reactor coolant system and the steam generators requiring the valves to remain open for adequate heat dissipation from the primary side. In the remaining modes, there is less energy and since the MFW system is not used for startup or shutdown, the valves are closed. Startup and shutdown are performed using the auxiliary feedwater (AFW) system. When the valves are closed, they are performing their safety function and, therefore, the APPLICABILITY exception that the isolation system be considered OPERABLE when an inoperable valve is closed, is acceptable. This is the same applicability as in the Westinghouse improved STS for plants similar to the Vogtle design.

ACTION Statement a. in the proposed TS provides that if one MFIV, MFRV, or associated bypass valve is inoperable in one or more MFW lines, operation may continue provided each inoperable valve is restored to OPERABLE status or closed within 72 hours. Otherwise, the plant must be in HOT STANDBY (MODE 3) within the next 6 hours. This is acceptable because of the redundancy provided in each line such that the isolation function is still available. Also, this action is consistent with the action taken for an inoperable main steam isolation valve (MSIV) in the Vogtle TS.

ACTION Statement b., as proposed, provides that with no isolation system (each system consisting of an MFIV and its associated bypass valve or an MFRV and its associated bypass valve) OPERABLE in any one feedwater line, restore at least one system in each line to OPERABLE status within 4 hours or be in HOT STANDBY (MODE 3) within the next 6 hours. This ACTION statement is consistent with the Vogtle TS for two inoperable MSIVs in one steam line. These times are considered acceptable based on operating experience and the low probability of an event requiring main feedwater isolation during the time period.

The proposed surveillance requirements (SR) for the main feedwater isolation system are consistent with the accident analyses in Chapter 15 of the Vogtle Final Safety Analysis Report (FSAR). The proposed SR are, therefore, acceptable. The proposed exception for entry into MODE 2 is also acceptable because, according to existing procedures, the licensee normally performs this SR after entry into MODE 2. Until the test, the valves are maintained closed and the steam generators are fed by the AFW system.

The proposed change includes all related requirements of NUREG-1431, Revision 0. Consequently, the NRC staff has concluded that this proposed change satisfies the Commission's Final Policy Statement on Technical Specification Improvement (58 FR 39132).

Based on its evaluation as described above, the staff concludes that the proposed TS change is consistent with the accident analyses in the FSAR and with related Vogtle TS for the MSIVs and the ESFAS. Moreover, the proposed change will enhance safety by limiting plant operation with the MFW system inoperable. The staff, therefore, concludes that the proposed change is acceptable.

### 3.0 STATE CONSULTATION

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

### 4.0 ENVIRONMENTAL CONSIDERATION

The amendments change requirements with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and change 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 previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (58 FR 16859 dated March 31, 1993). 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.

### 5.0 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: W. LeFave  
D. Starkey  
D. Hood

Date: October 6, 1993