

MARCH 2 1979

Docket No. 50-366

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Mr. Charles F. Whitmer  
 Vice President - Engineering  
 Georgia Power Company  
 P. O. Box 4545  
 Atlanta, Georgia 30302

Dear Mr. Whitmer:

The Commission has issued the enclosed Amendment No. 6 to Facility Operating License No. NPF-5 for the Edwin I. Hatch Nuclear Plant, Unit No. 2. The amendment consists of changes to the Technical Specifications in response to your application dated February 27, 1979.

This amendment revises the Limiting Conditions for Operation and Associated Surveillance requirements for the Core Spray System by adding an alternate flow path in Cold Shutdown and Refueling Modes.

Copies of the Safety Evaluation and the Notice of Issuance are also enclosed.

Sincerely,

Original signed by

Thomas A. Ippolito, Chief  
 Operating Reactors Branch #3  
 Division of Operating Reactors

Enclosures:

1. Amendment No. 6
2. Safety Evaluation
3. Notice

cc w/enclosures:  
 see next page

*Grimes*  
 3/2/79

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DATE →	3/2/79	3/02/79	3/2/79	3/2/79	3/2/79	3/2/79

Mr. Charles F. Whitmer

cc:

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

GEORGIA POWER COMPANY  
OGLETHORPE ELECTRIC MEMBERSHIP CORPORATION  
MUNICIPAL ELECTRIC ASSOCIATION OF GEORGIA  
CITY OF DALTON, GEORGIA

EDWIN I. HATCH NUCLEAR PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 6  
License No. NPF-5-

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Georgia Power Company, et al., (the licensee) dated February 27, 1979, 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 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.

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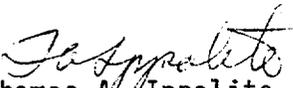
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-5 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 6, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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

FOR THE NUCLEAR REGULATORY COMMISSION

  
Thomas A. Ippolito, Chief  
Operating Reactors Branch #3  
Division of Operating Reactors

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: March 2, 1979

ATTACHMENT TO LICENSE AMENDMENT NO. 6

FACILITY OPERATING LICENSE NO. NPF-5

DOCKET NO. 50-366

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change.

Remove

3/4 5-3\*  
3/4 5-4  
3/4 5-5  
3/4 5-6\*  
3/4 5-9  
3/4 5-10

Insert

3/4 5-3\*  
3/4 5-4  
3/4 5-5  
3/4 5-6\*  
3/4 5-9  
3/4 5-10

\*Overleaf provided for convenience only.

## EMERGENCY CORE COOLING SYSTEMS

### 3/4.5.2 AUTOMATIC DEPRESSURIZATION SYSTEM

#### LIMITING CONDITION FOR OPERATION

3.5.2 The Automatic Depressurization System (ADS) shall be OPERABLE with at least seven OPERABLE ADS valves.

APPLICABILITY: CONDITIONS 1, 2 and 3 with reactor vessel steam dome pressure  $>150$  psig.

#### ACTION:

- a. With one of the above required ADS valves inoperable, POWER OPERATION may continue provided the HPCI, CSS and LPCI systems are OPERABLE; restore the inoperable ADS valve to OPERABLE status within 14 days or be in at least HOT SHUTDOWN within the next 12 hours and reduce reactor vessel steam dome pressure to  $\leq 150$  psig within the following 24 hours.
- b. With two or more of the above required ADS valves inoperable, be in at least HOT SHUTDOWN within 12 hours and reduce reactor steam dome pressure to  $\leq 150$  psig within the next 24 hours.
- c. With the Surveillance Requirement of Specification 4.5.2.b not performed at the required interval due to low reactor steam pressure, the provisions of Specification 4.0.4 are not applicable provided the appropriate surveillance is performed within 12 hours after reactor steam pressure is adequate to perform the tests.

#### SURVEILLANCE REQUIREMENTS

4.5.2 The ADS shall be demonstrated OPERABLE at least once per 18 months by:

- a. Performing a system functional test which includes simulated automatic actuation of the system throughout its emergency operating sequence, but excluding actual valve actuation.
- b. Manually opening each ADS valve when the reactor steam dome pressure is  $\geq 100$  psig and observing that either;
  1. The control valve or bypass valve position responds accordingly, or
  2. There is a corresponding change in the measured steam flow.

## EMERGENCY CORE COOLING SYSTEMS

### 3/4.5.3 LOW PRESSURE CORE COOLING SYSTEMS

#### CORE SPRAY SYSTEM

##### LIMITING CONDITION FOR OPERATION

3.5.3.1 Two independent Core Spray System (CSS) subsystems shall be OPERABLE with each subsystem comprised of:

- a. One OPERABLE CSS pump, and
- b. An OPERABLE flow path capable of taking suction from at least one of the following OPERABLE sources and transferring the water through the spray sparger to the reactor vessel;
  1. In CONDITION 1, 2 or 3, from the suppression pool.
  2. In CONDITION 4 or 5\*;
    - a) From the suppression pool, or
    - b) When the suppression pool is being drained, from the condensate storage tank containing at least (150,000) gallons of water.

APPLICABILITY: CONDITIONS 1, 2, 3, 4, and 5\*.

##### ACTION:

- a. In CONDITION 1, 2 or 3;
  1. With one CSS subsystem inoperable, POWER OPERATION may continue provided both LPCI subsystems are OPERABLE; restore the inoperable CSS subsystem to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
  2. With both CSS subsystems inoperable, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.
  3. In the event the CSS is actuated and injects water into the reactor coolant system, a Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 90 days describing the circumstances of the actuation and the total accumulated actuation cycles to date.

\* The core spray system and the suppression chamber are not required to be OPERABLE provided that the reactor vessel head is removed and the cavity is flooded, the spent fuel pool gates are removed, and the water level is maintained within the limits of Specifications 3.9.9 and 3.9.10

## EMERGENCY CORE COOLING SYSTEMS

### LIMITING CONDITION FOR OPERATION (Continued)

#### ACTION (Continued)

- b. In CONDITION 4 or 5\*;
  1. With one CSS subsystem inoperable, operation may continue provided that at least one LPCI subsystem is OPERABLE within 4 hours; otherwise, suspend all operations that have a potential for draining the reactor vessel.
  2. With both CSS subsystems inoperable, operation may continue provided that at least one LPCI subsystem is OPERABLE and both LPCI subsystems are OPERABLE within 4 hours. Otherwise, suspend all operations that have a potential for draining the reactor vessel and verify that at least one LPCI subsystem is OPERABLE within 4 hours.
  3. The provisions of Specification 3.0.3 are not applicable.

#### SURVEILLANCE REQUIREMENTS

##### 4.5.3.1 Each CSS subsystem shall be demonstrated OPERABLE:

- a. At least once per 12 hours by verifying the condensate storage tank minimum required volume when the condensate storage tank is required to be OPERABLE.
- b. At least once per 31 days by:
  1. Verifying that the system piping from the pump discharge valve to the system isolation valve is filled with water, and
  2. Verifying that each valve (manual, power operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.
- c. At least once per 92 days by:
  1. Verifying that each CSS pump can be started from the control room and develops a flow of at least 4625 gpm on recirculation flow against a system head corresponding to a reactor vessel pressure of  $\geq$  113 psig, and

EMERGENCY CORE COOLING SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

2. Performing a CHANNEL CALIBRATION of the core spray header  $\Delta P$  instrumentation and verifying the set point to be  $\pm 0.5$  psid greater than the normal indicated  $\Delta P$ .
- d. At least once per 18 months by performing a system functional test which includes simulated automatic actuation of the system throughout its emergency operating sequence and verifying that each automatic valve in the flow path actuates to its correct position. Actual injection of coolant into the reactor vessel may be excluded from this test.

LIMITING CONDITION FOR OPERATION

3.5.4 The suppression chamber shall be OPERABLE with a minimum contained water volume of 653,000 gallons, equivalent to a level of 12'2", and the water level instrumentation channels alarms adjusted to actuate at a low water level  $\geq 12'2"$ , except that the suppression chamber may be drained:

- a. In OPERATIONAL CONDITION 4, provided that;
  1. No work is performed which has a potential for draining the reactor vessel,
  2. The reactor mode switch is locked in the Shutdown position, and
  3. The core spray system is OPERABLE per Specification 3.5.3.1 with an OPERABLE flow path capable of taking suction from the OPERABLE condensate storage tank and transferring the water through the spray sparger to the reactor vessel.
- b. In OPERATIONAL CONDITION 5, provided that the reactor mode switch is locked in the Refuel position, and:
  1. The core spray system is OPERABLE per Specification 3.5.3.1 with an OPERABLE flow path capable of taking suction from the OPERABLE condensate storage tank and transferring the water through the spray sparger to the reactor vessel, or
  2. The reactor vessel head is removed and the cavity is flooded, the spent fuel pool gates are removed, and the water level is maintained within the limits of Specifications 3.9.8 and 3.9.9.

APPLICABILITY: CONDITION 1, 2, 3, 4 and 5.

ACTION:

- a. In CONDITION 1, 2 or 3 with the suppression chamber water level less than the above limit, restore the water level to within the limit within 1 hour or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. In CONDITION 4 or 5 with the suppression chamber drained and the conditions of Specification 3.5.4.a or 3.5.4.b, as applicable, not satisfied, suspend all operations in the reactor vessel and all positive reactivity changes. The provisions of Specification 3.0.3 are not applicable.

## EMERGENCY CORE COOLING SYSTEMS

### LIMITING CONDITION FOR OPERATION (Continued)

#### ACTION (Continued)

- c. With one suppression chamber water level instrumentation channel inoperable, restore the inoperable channel to OPERABLE status within 30 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours and verify the suppression chamber water level to be  $\geq 12'2''$  at least once per 12 hours.
- d. With both suppression chamber water level instrumentation channels inoperable, restore at least one inoperable channel to OPERABLE status within 6 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours and verify the suppression chamber water level to be  $\geq 12'2''$  at least once per hour.

### SURVEILLANCE REQUIREMENTS

4.5.4.1 The suppression chamber shall be determined OPERABLE by verifying:

- a. The water level to be  $\geq 12'2''$  at least once per 24 hours.
- b. Two suppression chamber water level instrumentation channels (2T48-R607A,B) OPERABLE by performance of a:
  - 1. CHANNEL CHECK at least once per 24 hours,
  - 2. CHANNEL FUNCTIONAL TEST at least once per 31 days, and
  - 3. CHANNEL CALIBRATION at least once per 6 months.

4.5.4.2 The conditions of Specification 3.5.4.b.2 shall be verified to be satisfied prior to draining the suppression pool and at least once per 12 hours thereafter while the suppression pool is drained.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
SUPPORTING AMENDMENT NO. 6 TO FACILITY OPERATING LICENSE NO. NPF-5

GEORGIA POWER COMPANY  
OGLETHORPE ELECTRIC MEMBERSHIP CORPORATION  
MUNICIPAL ELECTRIC ASSOCIATION OF GEORGIA  
CITY OF DALTON, GEORGIA

EDWIN I. HATCH NUCLEAR PLANT, UNIT NO. 2

DOCKET NO. 50-366

Introduction

By letter dated February 27, 1979, Georgia Power Company (the licensee) requested a change to the Technical Specifications appended to Operating License No. NPF-5 for the Edwin I. Hatch Nuclear Plant Unit No. 2. The proposed change would revise the Limiting Conditions for Operation and associated Surveillance requirements for the Core Spray System (CSS) by adding an alternate flow path in Cold Shutdown and Refueling Modes. The primary, alternate source of water would be the Condensate Storage Tank (in lieu of the suppression pool) and the use of this alternate source would be authorized only for the purpose of draining the suppression chamber. The licensee's proposal would also: (1) prohibit any work which would have the potential for draining the vessel (e.g., maintenance on Control Rod Drives), and (2) increase the frequency of Surveillance requiring verification of valve lineup and filled pipes from once per 31 days (as currently authorized) to once per shift.

Evaluation

The staff has previously reviewed and approved this type Technical Specification (see Brunswick 1 and 2, Docket Nos. 50-325 and 50-324). We have reviewed the licensee's submittal and determined that the proposed Technical Specification change as amended by the staff is acceptable based on the following discussion.

The water in the suppression pool is primarily the emergency heat sink for any postulated transient or accident condition that releases energy from the primary coolant system through relief and safety valves or coolant system breaks.

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The suppression pool (torus water) receives energy during these transients or accidents in the form of steam and water from the reactor pressure relief discharge piping or from the drywell vent system downcomers following release of energy into the drywell. The steam discharges into the suppression pool several feet below the surface of the water and condenses.

When the reactor mode switch is locked in the "refuel" or "shutdown" position with the primary system depressurized and cold (less than 212°F) the suppression pool water is no longer required as an emergency heat sink to condense steam from the pressurized coolant system. However, the suppression pool water is also the normal source of water for the CSS.

The CSS is required in the cold shutdown and refueling modes to provide a source of flooding in the case of accidental draining of the vessel. Current specifications require an operable flow path capable of taking suction from the suppression pool and transferring the water through the spray sparger to the reactor vessel. If an alternate source of water is provided for equivalent emergency core cooling under these conditions, there is no increase in the probability of an accident or risk to the health and safety of the public.

The condensate storage tank (CST) contains demineralized water and is the initial source of water for the high pressure systems (High Pressure Coolant Injection and Reactor Core Isolation Cooling Systems) for refilling of the reactor vessel at pressure. This source of water is used instead of the less desirable water from the suppression pool. This source also provides the fluid for the Control Rod Hydraulic Control System. Thus, the CST is an acceptable alternative as a source of water for the CSS. Should the CST become unavailable, other sources of water (e.g., Demineralizer Water Storage Tank, Condensor Hotwell, and the Ultimate Heat Sink) could be made available as a source of water for refilling the vessel. Thus, an alternate, reliable source of water is available for the CSS.

The staff recommended a revision to the wording of the specifications to provide consistency among licenses with Standard Technical Specifications. These changes were discussed with the licensee and he agreed.

The Technical Specification approved by the staff includes prohibiting any work which would have the potential for draining the vessel. In addition, the staff recommended and the licensee agreed to implement a written procedure which would require redundant channels of instrumentation for monitoring vessel water level and provide written instructions for the operator of what specific actions to take should the level in the vessel begin to drop.

### Environmental Consideration

We have determined that this amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and pursuant to 10 CFR 51.5(d)(4) that an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

### Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: March 2, 1979

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NO. 50-366GEORGIA POWER COMPANY, ET AL.NOTICE OF ISSUANCE OF AMENDMENT TO FACILITYOPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 6 to Facility Operating License No. NPF-5, issued to Georgia Power Company, Oglethorpe Electric Membership Corporation, Municipal Electric Association of Georgia, and City of Dalton, Georgia, which revised Technical Specifications for operation of the Edwin I. Hatch Nuclear Plant, Unit No. 2 (the facility) located in Appling County, Georgia. The amendment is effective as of its date of issuance.

This amendment revises the Limiting Conditions for Operation and associated Surveillance requirements for the Core Spray System by adding an alternate flow path in Cold Shutdown and Refueling Modes.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

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The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR Section 51.5(d)(4) an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the application for amendment dated February 27, 1979, (2) Amendment No. 6 to License No. NPF-5, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C. and at the Appling County Public Library, Parker Street, Baxley, Georgia 31513. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 2 day of March 1979.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Thomas A. Ippolito, Chief  
Operating Reactors Branch #3  
Division of Operating Reactors