

July 18, 1989

Docket No: 50-321

Mr. W. G. Hairston, III
Senior Vice President -
Nuclear Operations
Georgia Power Company
P. O. Box 1295
Birmingham, Alabama 35201

Dear Mr. Hairston:

SUBJECT: ISSUANCE OF AMENDMENT NO. 166 TO FACILITY OPERATING LICENSE DPR-57 -
EDWIN I. HATCH NUCLEAR PLANT, UNIT 1 (TAC 72815)

The Commission has issued the enclosed Amendment No. 166 to Facility Operating License DPR-57 for the Edwin I. Hatch Nuclear Plant, Unit 1. The amendment consists of changes to the Technical Specifications (TS) in response to your application dated March 20, 1989.

The amendment changes TS 4.6.F.2 so that reactor coolant activity sampling would be required only once every 24 hours at times when the continuous activity monitor is out of service and the reactor coolant temperature is equal to or less than 212° F.

A copy of our Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's Bi-Weekly Federal Register Notice.

Sincerely,

/s/

Lawrence P. Crocker, Project Manager
Project Directorate II-3
Division of Reactor Projects-I/II
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 166 to DPR-57
2. Safety Evaluation

cc w/ enclosures:

See next page

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DATED July 18, 1989

AMENDMENT NO. 166 TO FACILITY OPERATING LICENSE DPR-57, EDWIN I. HATCH, UNIT 1

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Mr. W. G. Hairston, III
Georgia Power Company

Edwin I. Hatch Nuclear Plant,
Units Nos. 1 and 2

cc:

G. F. Trowbridge, Esq.
Shaw, Pittman, Potts and Trowbridge
2300 N Street, N. W.
Washington, D.C. 20037

Mr. R. P. McDonald
Executive Vice President -
Nuclear Operations
Georgia Power Company
P.O. Box 1295
Birmingham, Alabama 35201

Mr. L. T. Gucwa
Engineering Department
Georgia Power Company
P. O. Box 1295
Birmingham, Alabama 35201

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

Nuclear Safety and Compliance Manager
Edwin I. Hatch Nuclear Plant
Georgia Power Company
P. O. Box 442
Baxley, Georgia 31513

Mr. Louis B. Long
Southern Company Services, Inc.
P. O. Box 1295
Birmingham, Alabama 35201

Resident Inspector
U.S. Nuclear Regulatory Commission
Route 1, Box 725
Baxley, Georgia 31513

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

Mr. Charles H. Badger
Office of Planning and Budget
Room 610
270 Washington Street, S.W.
Atlanta, Georgia 30334

Mr. J. Leonard Ledbetter, Director
Environmental Protection Division
Department of Natural Resources
205 Butler Street, S.E., Suite 1252
Atlanta, Georgia 30334

Chairman
Appling County Commissioners
County Courthouse
Baxley, Georgia 31513



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

GEORGIA POWER COMPANY
OGLETHORPE POWER CORPORATION
MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA
CITY OF DALTON, GEORGIA
DOCKET NO. 50-321
EDWIN I. HATCH NUCLEAR PLANT, UNIT NO. 1
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 166
License No. DPR-57

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Edwin I. Hatch Nuclear Plant, Unit 1 (the facility) Facility Operating License No. DPR-57 filed by Georgia Power Company, acting for itself, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia, (the licensee) dated March 20, 1989, 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 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 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. DPR-57 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 166, 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 its date of issuance and shall be implemented within 60 days 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:
Changes to the Technical
Specifications

Date of Issuance: July 18, 1989

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. DPR-57 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 166, 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 its date of issuance and shall be implemented within 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Original Signed By:
David B. Matthews

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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: July 18, 1989

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EMcCracken
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concern
OGC-WF
7/12/89

DBMatthews
7/11/89

ATTACHMENT TO LICENSE AMENDMENT NO. 166

FACILITY OPERATING LICENSE NO. DPR-57

DOCKET NO. 50-321

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised page is identified by amendment number and contains a vertical line indicating the area of change.

Remove Page

3.6-6

Insert Page

3.6-6

3.6.F.2. Conductivity and Chloride

- a. During reactor operation when the reactor is pressurized, or above 212°F, and at less than 1% of rated steam flow, including hot standby, the reactor coolant shall not exceed the following limits:

Conductivity - 5 μmho/cm at 25°C
Chloride - 0.1 ppm

- b. During reactor operation in excess of 1% of rated steam flow, the reactor coolant shall not exceed the following limits:

Conductivity - 2 μmho/cm at 25°C
Chloride - 0.2 ppm

- c. The reactor coolant may exceed the limits of Paragraphs a and b, only for the time limits specified here. Exceeding these time limits or the following maximum limits shall be cause for immediately shutting down and placing the reactor in the cold shutdown condition.

Conductivity - Time above the conductivity limits in paragraphs a and b at 25°C, 2 weeks/year. Maximum limit - 10 μmho/cm at 25°C.

Chloride - Time above 0.2 ppm 2 weeks/year. Maximum limit - 0.5 ppm.

The reactor shall be shut down if pH is <5.2 or >9.0 for a 24-hour period.

- d. When the reactor is not pressurized (i.e., at or below 212°F), reactor coolant shall be maintained below the following limits:

Conductivity - 10 μmho/cm at 25°C
Chloride - 0.5 ppm

and pH shall be between 5.3 and 8.6.

4.6.F.2. Conductivity and Chloride

- a. Reactor coolant shall be continuously monitored for conductivity.

- (1) Whenever the continuous conductivity monitor is inoperable, an inline conductivity measurement shall be obtained:

- (a) At least once every 4 hours when the reactor coolant temperature is >212° F.

- (b) At least once every 24 hours when the reactor coolant temperature is ≤212° F.

- (2) Once a week the continuous conductivity monitor shall be checked with an inline flow cell. This inline conductivity calibration shall be performed every 24 hours whenever the reactor coolant conductivity is >2.0 μmho/cm at 25°C.

- b. During startup prior to pressurizing the reactor above atmospheric pressure, measurements shall be performed to show conformance with section a. of limiting conditions.

- c. Whenever the reactor is operating (including hot standby conditions), measurements of reactor water quality shall be performed according to the following schedule:

- (1) Chloride ion content shall be measured at least once every 96 hours.

- (2) Chloride ion content shall be measured at least once every 8 hours whenever reactor coolant conductivity is >2.0 μmho/cm at 25°C.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 166 TO

FACILITY OPERATING LICENSE DPR-57

GEORGIA POWER COMPANY
OGLETHORPE POWER CORPORATION
MUNICIPAL ELECTRIC AUTHORITY OF GEORGIA
CITY OF DALTON, GEORGIA

EDWIN I. HATCH NUCLEAR PLANT, UNIT 1

DOCKET NO. 50-321

1.0 INTRODUCTION

By letter dated March 20, 1989, Georgia Power Company (the licensee) requested a change to the Technical Specifications (TS) for the Edwin I. Hatch Nuclear Plant, Unit 1. Specifically, the licensee proposed to change TS 4.6.F.2 such that reactor coolant activity sampling would be required only once every 24 hours at times when the continuous activity monitor is out of service and the reactor coolant temperature is equal to or less than 212° F.

2.0 DISCUSSION

High conductivity of the reactor coolant may indicate the presence of chlorides in the coolant that can lead to stress corrosion cracking of stainless steel components in contact with the coolant. Normally, reactor coolant conductivity is monitored continuously by a conductivity monitor. During periods when the conductivity monitor is out of service, the TS require that conductivity be measured periodically by taking samples of the reactor coolant.

The Hatch Unit 1 TS 4.6.F.2 requires this periodic sampling at four-hour intervals when the conductivity monitor is out of service. The Standard Technical Specifications (STS), developed after issuance of the Hatch 1 TS, also require periodic sampling of the reactor coolant when the conductivity monitor is out of service. However, recognizing that the corrosion rate is temperature dependent, the STS require the periodic sampling at four-hour intervals when the reactor is in Hot Shutdown or above (operating conditions 1, 2 and 3), but at a reduced frequency of once per 24-hours when the reactor is in Cold Shutdown or Refueling (operating conditions 4 and 5). The difference between Hot Shutdown and Cold Shutdown is the reactor coolant temperature. The reactor is in the Hot Shutdown condition when the mode switch is in Shutdown and the reactor

coolant temperature is greater than 200° F. With the mode switch in Shutdown and the reactor coolant temperature equal to or less than 200° F, the reactor is in the Cold Shutdown condition.

The licensee's requested change to the Unit 1 TS would result in sampling frequencies comparable to the STS, i.e., once per 4-hour period when the reactor is in Hot Shutdown or above, but once per 24-hour period when the reactor is in Cold Shutdown or Refueling. However, the Hatch Unit 1 TS specify a break-point temperature of 212° F rather than the 200° F of the STS. For Hatch Unit 1, Hot Shutdown is associated with coolant temperatures greater than 212° F while Cold Shutdown is achieved when the temperature is reduced to 212° F or less.

While the stress corrosion cracking rate is known to be temperature dependent, the difference between the rate at 212° F and the rate at 200° F is small and of little importance. The temperatures of real concern as regards stress corrosion cracking are the higher temperatures associated with power operation, in the range of 530° F. The proposed TS change for Hatch Unit 1 would ensure that frequent sampling of the reactor coolant is conducted when the reactor is in an operating mode where higher coolant temperatures could lead to increased stress corrosion cracking. Thus, the proposed TS change for Hatch Unit 1 would result in coolant sampling requirements effectively the same as the sampling requirements in the STS.

Since the staff previously has approved the STS, and since this proposed change would make the sampling requirements for Unit 1 consistent with the STS in this regard, we find the change acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves changes to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20. The 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. 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.

4.0 CONCLUSION

The Commission made a proposed determination that the amendment involves no significant hazards consideration which was published in the Federal Register on May 31, 1989 (54 FR 23313), and consulted with the state of Georgia. No public comments were received, and the state of Georgia did not have any comments.

We have 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, and (2) such activities will be conducted in compliance with the Commission's regulations, and 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: Lawrence P. Crocker, PDII-3/DRP-I/II

Dated: July 18, 1989