

AUG 5 1977

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- TBAbernathy
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Docket No. 50-<sup>321</sup>

Georgia Power Company  
 Oglethorpe Electric Membership Corporation  
 Municipal Electric Association of Georgia  
 City of Dalton, Georgia  
 ATTN: Mr. I. S. Mitchell, III  
 Vice President and Secretary  
 Georgia Power Company  
 Atlanta, Georgia 30302

Gentlemen:

The Commission has issued the enclosed Amendment No. 43 to Facility Operating License No. DPR-57 for the Edwin I. Hatch Nuclear Plant Unit No. 1. The amendment consists of changes to the Technical Specifications in response to your application dated May 19, 1977.

The amendment will modify the Technical Specifications defining the surveillance schedule of Shock Suppressors (snubbers). The change will allow GPC to enter the visual inspection schedule for inaccessible snubbers on a 6-month inspection interval, if they all have been inspected, functionally tested and repaired to return them to within specifications, during a unit outage.

Copies of the Safety Evaluation and the FEDERAL REGISTER Notice are also enclosed.

Sincerely,

Original signed by

George Lear, Chief  
 Operating Reactors Branch #3  
 Division of Operating Reactors

Enclosures:

1. Amendment No. 43
2. Safety Evaluation
3. FEDERAL REGISTER Notice

Const 1

cc: See next page

\*SEE PREVIOUS YELLOW FOR CONCURRENCES

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OFFICE →	ORB #3	ORB #3	OELD	ORB #3	
SURNAME →	*CParrish	*SNowicki	<del>CParrish</del>	GLear 62	
DATE →	6/22/77	6/22/66	7/13/77	8/14/77	

Docket No. 50-321

Georgia Power Company  
Oglethorpe Electric Membership Corporation  
Municipal Electric Association of Georgia  
City of Dalton, Georgia  
ATTN: Mr. I. S. Mitchell, III  
Vice President and Secretary  
Georgia Power Company  
Atlanta, Georgia 30302

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Copies of the Safety Evaluation and the FEDERAL REGISTER Notice are also enclosed.

Sincerely,

George Lear, Chief  
Operating Reactors Branch #3  
Division of Operating Reactors

Enclosures:

- 1. Amendment No.
- 2. Safety Evaluation
- 3. FEDERAL REGISTER Notice

cc: See next page

OFFICE >	ORB #3	ORB #3	OELD	ORB #3		
SURNAME >	CParrish <i>cp</i>	SNowicki <i>snj</i>	<i>KARMAN</i>	GLear		
DATE >	6/24/77	6/22/77	6/13/77	6/ /77		



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

August 5, 1977

Docket No. 50-321

Georgia Power Company  
Oglethorpe Electric Membership Corporation  
Municipal Electric Association of Georgia  
City of Dalton, Georgia  
ATTN: Mr. I. S. Mitchell, III  
Vice President and Secretary  
Georgia Power Company  
Atlanta, Georgia 30302

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Copies of the Safety Evaluation and the FEDERAL REGISTER Notice are also enclosed.

Sincerely,

A handwritten signature in cursive script that reads "George Lear".

George Lear, Chief  
Operating Reactors Branch #3  
Division of Operating Reactors

Enclosures:

1. Amendment No. 43
2. Safety Evaluation
3. FEDERAL REGISTER Notice

cc: See next page

Georgia Power Company  
Oglethorpe Electric Membership Corporation  
Municipal Electric Association of Georgia  
City of Dalton, Georgia

- 2 -

cc:  
G. F. Trowbridge, Esquire  
Shaw, Pittman, Potts and Trowbridge  
1800 M Street, N. W.  
Washington, D. C. 20036

Mr. D. P. Shannon  
Georgia Power Company  
Edwin I. Hatch Plant  
P. O. Box 442  
Baxley, Georgia 31513

Ruble A. Thomas  
Vice President  
P. O. Box 2625  
Southern Services, Inc.  
Birmingham, Alabama 35202

U. S. Environmental Protection Agency  
Region IV Office  
ATTN: EIS COORDINATOR  
345 Courtland Street, N. E.  
Atlanta, Georgia 30308

Mr. Harry Majors  
Southern Services, Inc.  
300 Office Park  
Birmingham, Alabama 35202

Mr. John Robins  
Office of Planning and Budget  
Room 615-B  
270 Washington Street, S. W.  
Atlanta, Georgia 30334

Mr. H. B. Lee, Chairman  
Appling County Commissioners  
County Courthouse  
Baxley, Georgia 31513

Mr. L. T. Gucwa  
Georgia Power Company  
Engineering Department  
P. O. Box 4545  
Atlanta, Georgia 30302

Mr. C. P. Moore  
Georgia Power Company  
Production Department  
P. O. Box 4545  
Atlanta, Georgia 30302

Chief, Energy Systems Analysis Branch (AW-459)  
Office of Radiation Programs  
U. S. Environmental Protection Agency  
Room 645, East Tower  
401 M Street, S. W.  
Washington, D. C. 20460



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

DOCKET NO. 50-321

EDWIN I. HATCH NUCLEAR PLANT UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 43  
License No. DPR-57

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Georgia Power Company, Oglethorpe Electric Membership Corporation, Municipal Electric Association of Georgia and City of Dalton, Georgia, (the licensees) dated May 19, 1977, 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.

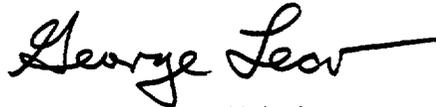
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-57 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 43, 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



George Lear, Chief  
Operating Reactors Branch #3  
Division of Operating Reactors

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: August 5, 1977

ATTACHMENT TO LICENSE AMENDMENT NO. 43  
TO THE TECHNICAL SPECIFICATIONS  
FACILITY OPERATING LICENSE NO. DPR-57  
DOCKET NO. 50-321

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

Remove

3.6-10b

Replace

3.6-10b

## 4.6.L. Shock Suppressors (Snubbers) (cont'd)

3. The initial inspection shall be performed within 6 months from the date of issuance of these specifications. For the purpose of entering the schedule in Specification 4.6.L.1, it shall be assumed that the facility had been on a 6 month inspection interval.
4. Once each refueling cycle, a representative sample of 10 hydraulic snubbers or approximately 10% of the hydraulic snubbers, whichever is less, shall be functionally tested for operability including verification of proper piston movement, lock up and bleed. For each unit and subsequent unit found inoperable, an additional 10% or ten hydraulic snubbers shall be so tested until no more failures are found or all units have been tested. Snubbers of rated capacity greater than 50,000 lbs. need not be functionally tested.
5. In the event that all inaccessible snubbers are inspected, functionally tested, and repaired as necessary during a unit outage, and that it is thus demonstrated that all inaccessible snubbers are operable, the schedule in Specification 4.6.L.1 may be re-entered on a 6 month inspection interval for the inaccessible snubbers.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
SUPPORTING AMENDMENT NO. 43 TO FACILITY OPERATING LICENSE NO. DPR-57

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

EDWIN I. HATCH NUCLEAR PLANT UNIT NO. 1

DOCKET NO. 50-321

Introduction

By letter dated May 19, 1977, Georgia Power Company (GPC) requested an amendment to Facility Operating License No. DPR-57 for the E. I. Hatch Nuclear Plant Unit No. 1. The amendment would modify the Technical Specifications defining the surveillance schedule of Shock Suppressors (snubbers). The proposed change would allow GPC to enter the visual inspection schedule for inaccessible snubbers on a 6-month inspection interval, if they all have been inspected, functionally tested and repaired to return them to within performance specifications, during a unit outage. The current Technical Specification modified the required inspection interval according to the number of snubbers found inoperable during visual inspection.

Discussion

Shock suppressors (snubbers) are designed to prevent unrestrained pipe motion under dynamic loads as might occur during an earthquake or severe transient, while allowing normal thermal motion during startup and shutdown. The consequence of an inoperable snubber is an increase in the probability of structural damage to piping as a result of a seismic or other event initiating dynamic loads. It is therefore required that all hydraulic snubbers required to protect the primary coolant system or any other safety system or component be operable during reactor operation.

The current Hatch Unit No. 1 Technical Specifications require that safety related hydraulic snubbers be visually inspected for overall integrity and operability. Snubbers are categorized in two groups: "accessible" and "inaccessible", based on the accessibility for inspection during reactor operation. The inspection for either group may be done independently and includes verification of proper orientation, adequate hydraulic fluid level and proper attachment of snubber to piping and structures.

The inspection frequency is based upon maintaining a constant level of snubber protection. Thus the required inspection interval varies inversely with the observed snubber failures. The number of inoperable snubbers found during a required inspection determines the time interval for the next required inspection.

To further increase the assurance of snubber reliability, functional tests are performed once each refueling cycle. These tests include stroking of the snubbers to verify proper piston movement, lock-up and bleed. Ten percent or ten snubbers, whichever is less is the required initial sample for such tests.

### Evaluation

GPC has undergone a comprehensive functional test, visual inspection and repair program during their first refueling outage which was completed May 17, 1977. Examination of their inspection and test data shows that 54 snubbers failed the combination of visual inspection and functional test. Some of the 54 failures were due to poor manufacturer's quality control practice during initial installation. Of the 54 failed snubbers only 9 snubbers were inaccessible and the remainder were accessible. The large difference in failure rate is attributed to reassembly of the inaccessible snubbers prior to initial unit startup when the vendor replaced the seals. The seals of accessible snubbers had not been replaced prior to startup and had not had visual examination or functional testing prior to the refueling outage completed May 17, 1977. It was during this outage that the current Technical Specifications became effective. Thus the failure data for the accessible snubbers is for approximately 30 months of operation.

Visual inspection of the accessible snubbers can be performed while the unit is in operation and GPC intends to enter the inspection schedule for the accessible snubbers on a 31 day interval; which conforms to Technical Specification requirements. Each visual inspection of the inaccessible snubbers requires that the reactor be shut down and the drywell de-inerted to enable personnel to enter the drywell for inspection. Since 9 inaccessible snubbers failed the visual inspection and functional test performed during the May 17, 1977 outage, the current Technical Specification would require entering the visual inspection schedule at 31 days for the inaccessible snubbers.

The proposed changes to the Technical Specifications would allow reentering the inspection schedule for inaccessible snubbers on a 6-month visual inspection interval when all of the inaccessible snubbers are visually inspected, functionally tested, and repaired (if necessary) to return them to within performance specifications, during a unit outage. To support

this request, GPC has supplied data which indicated that all snubbers (accessible and inaccessible) were functionally tested during the spring 1977 refueling outage. The test included verification of proper lock-up velocity and bleed rate and subjected the snubbers to sufficient forces to verify their integrity. The snubbers that were inoperable were repaired and all snubbers were verified to perform within the performance specifications. Consequently no snubbers were inoperable at the beginning of the current fuel cycle which began May 17.

Our review of the inspection data supplied by GPC indicates that some of the snubbers which passed the visual examination failed the functional test. Therefore, visual inspection, while assuring satisfactory oil level and monitoring for seal failures (the original reason for instituting snubber surveillance requirements), does not provide a 100% confidence level of snubber operability. However, functional testing, combined with repair and recalibration, if necessary, demonstrates 100% operability.

Of the 9 inaccessible snubbers that failed the combination of visual inspection and functional test criteria established by Georgia Power only 5 snubbers were reported as having failed due to low oil level. Low oil level is defined by Georgia Power as reduction of one graduation on the reservoir indicator. Inspection of the drywell floor and snubber areas revealed no evidence of oil leakage. Small amounts of leakage such as one graduation do not constitute an inability to perform during a seismic event.

Our review of the inspection data provided by the licensee shows that 100% of the snubbers were known to be operable at the beginning of the present fuel cycle. Data accumulated by the staff of operational experience with hydraulic snubbers demonstrates that seal failures develop after considerable thermal cycling and exposure to the operating environment. At Hatch Unit No. 1, a maximum temperature of 165°F with a radiation flux range of 10 to 100 rads/hr. are the most extreme environmental conditions to which any inaccessible snubbers will be subjected. Ethylene Propylene (E-P) seal material has been shown to be suitable for normal continuous operation at 200°F. The gamma radiation stability of E-P is good for service to  $10^7$  rads or slightly above. At 100 rads/hr, ( $8.76 \times 10^5$  rads/year) the service life would be over 10 years for radiation stability. Based upon the fact that E-P seal materials are expected to have a serviceable life far in excess of 32 months and that 100% of all snubbers have been shown to be operable the staff has concluded that entering the visual inspection on a six month interval is adequate.

Based on staff review of hydraulic snubber operation and failure rates for operating plants and the fact that the Hatch Unit No. 1 hydraulic snubbers were demonstrated to be 100% operational at the beginning of the present fuel cycle, we have concluded that the proposed change would maintain adequate assurance of snubber operability and is thus acceptable.

#### Environmental Considerations

We have determined that the 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 change does not involve a significant increase in the probability or consequences or accidents previously considered and does not involve a significant decrease in a safety margin, the change 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: August 5, 1977

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-321

GEORGIA POWER COMPANY

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

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY  
OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 43 to Facility Operating License No. DPR-57 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. 1, located in Appling County, Georgia. The amendment is effective as of its date of issuance.

The amendment consists of changes which will modify the Technical Specifications defining the surveillance schedule of Shock Suppressors (snubbers). The change will allow GPC to enter the visual inspection schedule for inaccessible snubbers on a 6-month inspection interval, if they all have been inspected, functionally tested and repaired to return them to within specifications, during a unit outage.

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

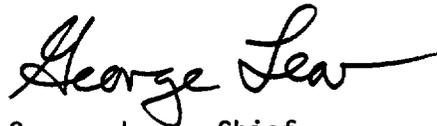
in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an 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 May 19, 1977, (2) Amendment No. 43 to License No. DPR-57 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 5th day of August 1977.

FOR THE NUCLEAR REGULATORY COMMISSION



George Lear, Chief  
Operating Reactors Branch #3  
Division of Operating Reactors