

NOV 20 1975

Docket No. 50-321

DISTRIBUTION:

NRC PDR	TJCarter
Local PDR	MSlater
Docket	PCollins
ORB#3 Rdg	SVarga
OELD	CHebron
OI&E (3)	AESteen
NDube	DEisenhut
BJones (w/4 encls)	
JMcGough	ACRS (16)
JSaltzman	Gray file
CParrish	extra cps
JGuibert	<b>C Haupt</b>
GLear	
KRGoller	
SKari	
BScharf (15)	

Georgia Power Company & Oglethorpe Electric  
 Membership Corporation  
 ATTN: Mr. I. S. Mitchell, III  
 Vice President & Secretary  
 Georgia Power Company  
 Atlanta, Georgia 30302

Gentlemen:

The Commission has issued the enclosed Amendment No. 23 to Facility  
 Operating License No. DPR-57 for the Edwin I. Hatch Nuclear Plant  
 Unit 1 in accordance with your application dated October 24, 1975.

This amendment authorizes installation of plugs in the bypass flow  
 holes of the core support plate.

Copies of the Safety Evaluation and the Federal Register Notice are  
 also enclosed.

Sincerely,

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

Enclosures:

1. Amendment No. 23
2. Safety Evaluation
3. Federal Register Notice

cc: See next page

bcc: TBAbernathy  
 JRBuchanan

*PR*

*CP-1*

*SHAPAR*

OFFICE →	ORB#3	ORB#3	OELD	ORB#3	
SURNAME →	CParrish:kuf	JGuibert	<del>_____</del>	GLear	
DATE →	11/13/75	11/13/75	11/17/75	11/20/75	

Georgia Power Company & Oglethorpe  
Electric Membership Corporation

cc:

G. F. Trowbridge, Esquire  
Shaw, Pittman, Potts and Trowbridge  
Barr Building  
910 17th Street, N. W.  
Washington, D. C. 20006

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

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

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

Appling County Public Library  
Parker Street  
Baxley, Georgia 31513

Mr. G. Wyman Lamb, Chairman  
Appling County Commissioners  
County Courthouse  
Baxley, Georgia 31513

Mr. John Robins  
Office of Planning and Budget  
Room 615-C  
270 Washington Street, SW  
Atlanta, Georgia 30334

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

GEORGIA POWER COMPANY  
OGLETHORPE ELECTRIC MEMBERSHIP CORPORATION

DOCKET NO. 50-321

EDWIN I. HATCH NUCLEAR PLANT UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 23  
License No. DPR-57

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Georgia Power Company and Oglethorpe Electric Membership Corporation (the licensees) dated October 24, 1975, 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; and
  - 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.
2. Accordingly, Facility License No. DPR-57, as amended, is hereby further amended by adding Paragraph 2.C.(3):

"(3) Facility Modification

The licensees are authorized to install plugs in the bypass flow holes of the core support plate in conformance with Georgia Power Company's submittal dated October 24, 1975. The reactor shall not be operated with plugs installed in the core support plate bypass holes without further authorization by the NRC."

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

FOR THE NUCLEAR REGULATORY COMMISSION

*Walter A. Paulson*

*for* George Lear, Chief  
Operating Reactors Branch #3  
Division of Reactor Licensing

Date of Issuance: November 20, 1975

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR

REGULATION

SUPPORTING AMENDMENT NO. 23 TO FACILITY OPERATING LICENSE

NO. DPR-57.

EDWIN I. HATCH NUCLEAR PLANT UNIT 1

GEORGIA POWER COMPANY AND OGLETHORPE

ELECTRIC MEMBERSHIP CORPORATION

DOCKET NO. 50-321

Introduction

By letter dated October 24, 1975, Georgia Power Company (GPC) submitted a safety analysis in support of proposed plant modifications to eliminate significant in core vibrations at Edwin I. Hatch Nuclear Plant Unit 1. By letter dated November 4, 1975 GPC requested that the submittal of October 24, 1975 be considered as an application for amendment to Facility Operating License No. DPR-57 for Hatch Unit 1.

Discussion

The October 24, 1975 submittal proposed plant modifications which consisted of plugging the bypass flow holes in the lower core support plate and drilling holes in the fuel assembly lower tie plates. However, due to a delay in the availability of the required drilling equipment, full implementation of the proposed modifications has also been delayed. Consequently, GPC has requested authorization for plugging only.

The installation of the core bypass flow plugs in the lower core plate is designed to reduce the flow-induced instrument tube - channel box interaction which results in unacceptable channel box wear.

Evaluation

The plug consists of five basic parts, as shown in Figure 1. Identical plugs have previously been installed at Vermont Yankee, Pilgrim, Cooper and Duane Arnold. The body provides a means of guiding the device into the bypass flow holes as well as a shoulder to support the plug and form a seal against water flow. The shaft extends through the body. A knob is provided at the top of the shaft to provide a means of grabbing the plug during installation and extraction. At the bottom, the latch is attached to the shaft by a pin. The latch is free to rotate during installation. The spring acts against the body and shaft during normal operation to provide the force necessary to offset the pressure differential acting on the body.

During installation, the plug has its latch rotated 90 degrees from its installed position and withdrawn and locked in the body. The shaft is gripped by the installation tool, and the plug is inserted into the bypass flow holes. The body engages the rim of the hole. The shaft is pushed to its full extension, thus lowering and unlocking the latch below the underside of the core plate. The latch then rotates 90 degrees and bears on the bottom of the core plate. After insertion, the plug is pulled with about 30-pound force to test the placement.

The plug can be removed by gripping the top of the shaft with an extracting tool and applying a force of about 500 pounds. The latch's legs will be plastically deformed and the entire plug withdrawn. The plugs previously installed at Vermont Yankee were removed with no abnormalities or loose pieces reported. The force required for removal varied from 500 to 1300 pounds.

Based on a review of the design, the installation methods, and the previously successful operating experience at Vermont Yankee, Pilgrim, and Duane Arnold, we conclude that the plugs can be installed without damage to core components, that they will not fail so as to result in loose parts in the core or result in unplugging of the bypass flow holes, and that they can be removed, if necessary, without damage to core components. Thus, the modification is reversible.

Accordingly, we conclude that the installation of the plugs is acceptable. Operation with plugged bypass holes is still under review and will be the subject of a separate licensing action.

#### Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the modification 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 modification 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 modification of the facility 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: November 20, 1975

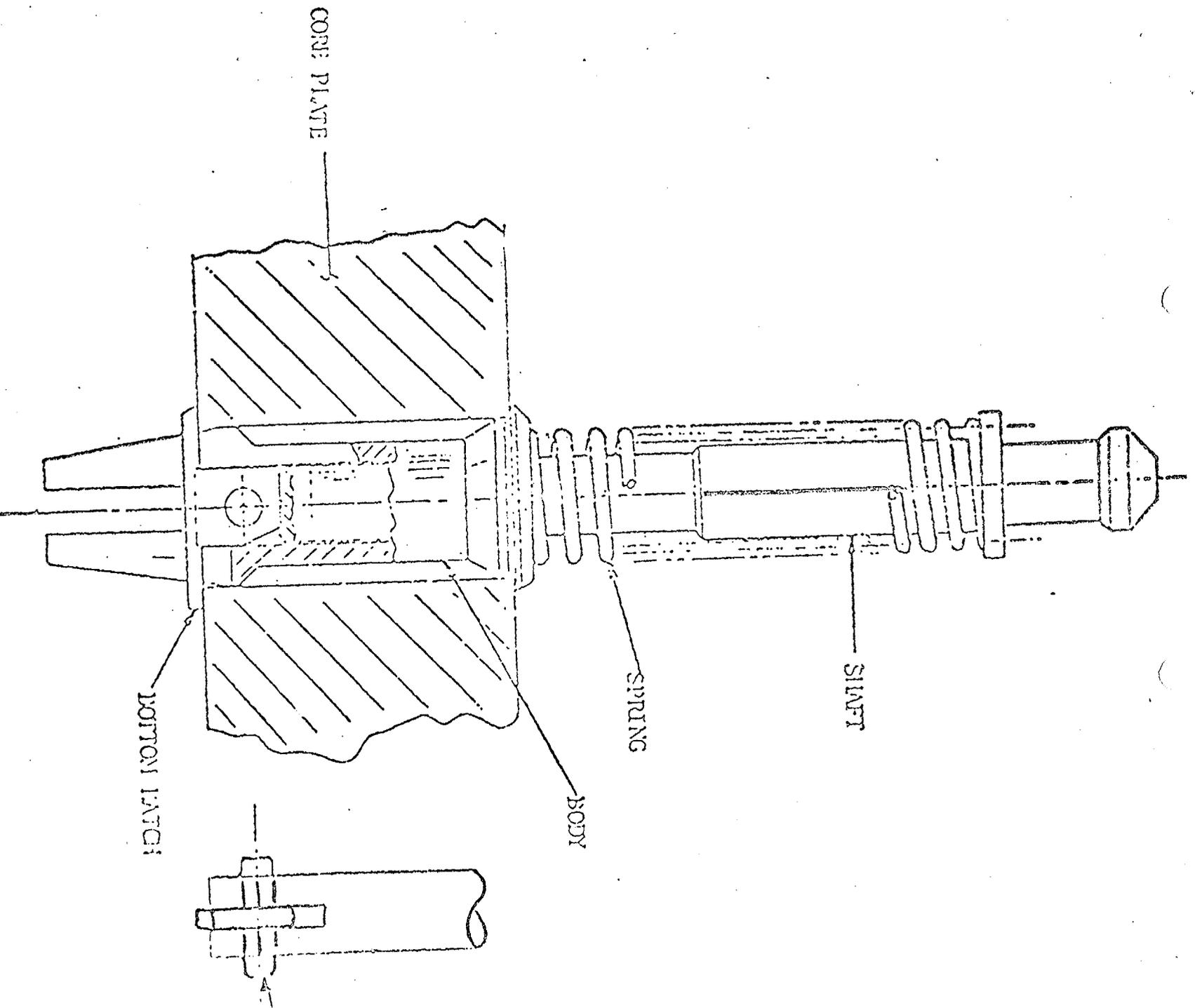


Figure 1 Plug Installed in Core Plate

All of these items are available for public inspection 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 Reactor Licensing.

Dated at Bethesda, Maryland, this 20<sup>th</sup> day of November, 1975.

FOR THE NUCLEAR REGULATORY COMMISSION

151

Walter A. Paulson, Acting Chief  
Operating Reactors Branch #3  
Division of Reactor Licensing

SHAPAR

OFFICE	ORB#3	ORB#3	OELD	ORB#3	
SURNAME	CParrish:knf	JGuibert	<del>XXXXXXXXXX</del>	GLear	
DATE	11/ 13 /75	11/ 13 /75	11/ 17 /75	11/ 20 /75	

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-321

GEORGIA POWER COMPANY  
OGLETHORPE ELECTRIC MEMBERSHIP CORPORATION

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY  
OPERATING LICENSE

Notice is hereby given that the U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 23 to Facility Operating License No. DPR-57 issued to Georgia Power Company and Oglethorpe Electric Membership Corporation for operation of the Edwin I. Hatch Nuclear Plant Unit 1, located in Appling County, Georgia. The amendment is effective as of its date of issuance.

The amendment authorizes installation of plugs in the bypass flow holes of the core support plate.

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 is not required since the amendment does not involve a significant hazards consideration.

For further details with respect to this action, see (1) the application for amendment dated October 24, 1975, supplement dated November 12, 1975, and report number NEDO-21072, (2) Amendment No. 23 to License No. DPR-57, and (3) the Commission's related Safety Evaluation.