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 W. Miller, DR:AO  
 R. Geckler, EPM  
 S. Burwell  
 H. Gearin  
 LWR 2 Branch Chiefs

Docket No. 50-321

NOV 13 1974

Georgia Power Company  
 ATTN: Mr. I. S. Mitchell, III  
 Vice President & Secretary  
 P. O. Box 4545  
 Atlanta, Georgia 30302

Gentlemen:

The Atomic Energy Commission has issued the enclosed Amendment No. 4 to Facility Operating License No. DPR-57 for the Edwin I. Hatch Nuclear Plant Unit 1 in response to your application of October 8, 1974, for a change to the Technical Specifications for this license. Change No. 5 to Appendix A of the Technical Specifications, attached to the amendment, incorporates the requested change into the license. The enclosed Safety Evaluation identifies and evaluates the change which is covered by this license amendment.

Also enclosed is a notice of issuance which will be forwarded to the Office of the Federal Register for publication.

Sincerely,

Original signed by  
 Voss A. Moore

Voss A. Moore, Assistant Director  
 for Light Water Reactors, Group 2  
 Directorate of Licensing

Enclosures:

1. Amendment No. 4 to DPR-57  
w/Change No. 5 to Appendix  
A, Technical Specifications
2. Safety Evaluation
3. Federal Register Notice

cc: (See next page)

OFFICE	L:GCR	L:LWR 2-1	OGC	L:LWR 2-1	
SURNAME	HGearin:aw	S/Stolz JStolz	<i>[Signature]</i>	V Moore	<i>Conrad</i>
DATE	10/23/74	10/23/74	10/17/74	11/13/74	

cc: Mr. Ruble A. Thomas  
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Southern Services, Inc.  
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Birmingham, Alabama 35202

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Mr. Harry Majors  
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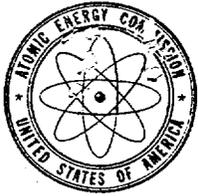
Mr. D. P. Shannon  
Georgia Power Company  
Edwin I. Hatch Nuclear Plant  
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Baxley, Georgia 31513

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

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

bcc: J. R. Buchanan, ORNL  
Thomas B. Abernathy, DTIE  
A. Rosenthal, ASLAS  
N. Goodrich, ASLBP  
ACRS (16)

OFFICE ▶						
SURNAME ▶						
DATE ▶						



UNITED STATES  
ATOMIC ENERGY COMMISSION  
WASHINGTON, D.C. 20545

GEORGIA POWER COMPANY

DOCKET NO. 50-321

EDWIN I. HATCH NUCLEAR PLANT UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 4  
License No. DPR-57

1. The Atomic Energy Commission (the Commission) having found that:
  - A. The application for amendment by the Georgia Power Company (the licensee) dated October 8, 1974, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended, 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. Prior public notice of this amendment is not required since the amendment does not involve a significant hazards consideration.

2. Accordingly, the license is amended by a change to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C(2) of Facility 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, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications, as revised by issued changes thereto through Change No. 5."

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

FOR THE ATOMIC ENERGY COMMISSION

*Voss A. Moore*

Voss A. Moore, Assistant Director  
for Light Water Reactors, Group 2  
Directorate of Licensing

Attachment:  
Change No. 5 to Appendix A  
Technical Specifications

Date of Issuance: NOV 13 1974

GEORGIA POWER COMPANY

DOCKET NO. 50-321

EDWIN I. HATCH NUCLEAR PLANT UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 4  
License No. DPR-57

1. The Atomic Energy Commission (the Commission) having found that:
  - A. The application for amendment by the Georgia Power Company (the licensee) dated October 8, 1974, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended, 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. Prior public notice of this amendment is not required since the amendment does not involve a significant hazards consideration.

- 2. Accordingly, the license is amended by a change to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C(2) of Facility 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, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications, as revised by issued changes thereto through Change No. 5."

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

FOR THE ATOMIC ENERGY COMMISSION

Original signed by  
Voss A. Moore

Voss A. Moore, Assistant Director  
for Light Water Reactors, Group 2  
Directorate of Licensing

Attachment:  
Change No. 5 to Appendix A  
Technical Specifications

Date of Issuance: NOV 13 1974

OFFICE ▶	L:LWR 2-1	OGC	L:LWR 2		
SURNAME ▶	<i>S.B. Somel</i> JFStolz	<i>S.H.L.</i> S.H. Lewis	<i>V.A. Moore</i> V.A. Moore		
DATE ▶	10/23/74	10/8/74	10/13/74		

Table 3.2-1 (Cont.)

Ref. No. (a)	Instrument	Trip Condition Nomenclature	Required Operable Channels Per Trip System (b)	Trip Setting	Action to be taken if number of channels is not met for both trip systems (c)	Remarks (d)
5	Main Steam Line Pressure	Low	2	>880 psig	Initiate an orderly load reduction and close MSIVs within 8 hours.	Initiates Group 1 isolation. Only required in RUN mode therefore activated when Mode Switch is in RUN position.
6	Main Steam Line Flow	High	2	<140% rated flow (<120 psid)	Initiate an orderly load reduction and close MSIVs within 8 hours.	Initiates Group 1 isolation.
7	Main Steam Line Tunnel Temperature	High	2	<200°F	Initiate an orderly load reduction and close MSIVs within 8 hours.	Initiates Group 1 isolation
8	Reactor Water Cleanup System Differential Flow	High	1	20-80 gpm	Isolate reactor water cleanup system.	Final trip setting will be determined during startup test program.
9	Reactor Water Cleanup Equipment Room Temperature	High	2	100 - 150°F	Isolate reactor water cleanup system.	Final trip setting will be determined during startup test program.
10	Reactor Water Cleanup Equipment Room Differential Temperature	High	2	0-100°F	Isolate reactor water cleanup system.	Final trip setting will be determined during startup test program.
11	Condenser Vacuum	Low	2	>7" Hg. vacuum	Initiate an orderly load reduction and close MSIVs within 8 hrs.	Initiate Group 1 Isolation

3.2-3

Change No. 5  
NOV 13 1974

3.2.A.7. Main Steam Line Tunnel Temperature High (Continued)

with the resultant small release of radioactivity, gives isolation before the guidelines of 10 CFR 100 are exceeded.

8. Reactor Water Cleanup System Differential Flow High

Gross leakage (pipe break) from the reactor water cleanup system is detected by measuring the difference of flow entering and leaving the system. The set point is low enough to ensure prompt isolation of the cleanup system in the event of such a break but, not so low that spurious isolation can occur due to normal system flow fluctuations and instrument noise. Time delay relays are used to prevent the isolation signal which might be generated from the initial flow surge when the cleanup system is started or when operational system adjustments are made which produce short term transients.

9. Reactor Water Cleanup Equipment Room Temperature High and10. Reactor Water Cleanup Equipment Room Differential Temperature High

Leakage in the high temperature process flow of the reactor water cleanup system external to the primary containment will be detected by temperature sensing elements. Temperature sensors are located in the inlet and outlet ventilation ducts to measure the temperature difference. Local ambient temperature sensors are located in the compartment containing equipment and piping for this system. An alarm in the main control room will be set to annunciate a temperature rise corresponding to a leakage within the identified limit. In addition to annunciation, a high cleanup room temperature will actuate automatic isolation of the cleanup system.

11. Condenser Vacuum Low

The Bases for Condenser Vacuum Low are discussed in The Bases for Specification 2.1.A.7.

B. Instrumentation Which Initiates or Controls HPCI (Table 3.2-2)1. Reactor Water Level Low Low (LL2) (Yarway)

The reactor water level instrumentation setpoint which initiates HPCI is  $\geq -38$  inches on the Yarway. This level is approximately 10.5 feet above the top of the active fuel and in the Technical Specifications is referred to as LL2. The reactor vessel low water level setting for HPCI system initiation is selected high enough above the active fuel to start the HPCI system in time both to prevent excessive fuel clad temperatures and to prevent more than a small fraction of the core from reaching the temperature at which gross fuel failure occurs. The water level setting is far enough below normal levels that spurious HPCI system startups are avoided.

2. Drywell Pressure High

The drywell pressure instrumentation setpoint which initiates HPCI is  $\leq 2$  psig. High drywell pressure is indicative of a failure of the nuclear system process barrier. This pressure is selected to be as low as possible without inducing spurious HPCI system startups. This instrumentation serves as a backup to the water level instrumentation described above.

SAFETY EVALUATION BY THE DIRECTORATE OF LICENSING  
SUPPORTING AMENDMENT NO. 4 TO LICENSE NO. DPR-57  
CHANGE NO. 5 TO APPENDIX A OF TECHNICAL SPECIFICATIONS

GEORGIA POWER COMPANY

EDWIN I. HATCH NUCLEAR PLANT UNIT 1

DOCKET NO. 50-321

1.0 INTRODUCTION

By letter dated October 8, 1974, Georgia Power Company requested a revision to the Technical Specifications Appendix A to change the differential flow trip setpoint for the Reactor Water Cleanup System (RWCS). This change was requested because the existing setting is causing spurious trips during normal operation of the system. The spurious trips result in system isolation when there are no breaks in the RWCS outside containment. The licensee concludes that the proposed change in the Technical Specifications does not compromise the safe operation of the plant and does not involve a significant hazards consideration.

2.0 DISCUSSION

Both the Technical Specifications and the Final Safety Analysis Report (FSAR) state that the final setting for the RWCS differential flow high setpoint will be determined during startup testing. The range of settings given in the FSAR is 0 - 100%. In preparing the Technical Specifications the initial setting was arbitrarily selected at  $\leq 7\%$  of normal system flow. This setting results in spurious trips of the isolation signal during normal RWCS transients; i.e., valve openings and closings and pump starts and stops. The FSAR (page 7-56a) indicates that the high differential flow trip setting is selected high enough to avoid spurious isolations yet low enough to provide timely detection and isolation. The 7% trip point setting is not consistent with the objective of avoiding spurious isolations. The licensee has therefore requested the Technical Specifications be changed to permit the differential flow setpoint to be set at any point within the range of 20 to 80 gpm. These flow rates correspond to about 7 to 30% of normal system flow.

Isolation of the RWCS is automatically initiated by three trip setpoints. The RWCS differential flow setpoint detects a break in the system outside containment by comparing the flow at a point just outside the primary containment and at a point downstream of the filter-demineralizers. The differential flow trip is provided to isolate the RWCS in the event of gross leakage, for example a pipe break. This change of up to 80 gpm is well below the changes in flow that would occur in the event of a pipe break. Therefore the increase in this trip point setting does not significantly reduce its protection in the event of the postulated pipe break. Isolation in the event of smaller leaks is accomplished by two sets of temperature detectors. One set of detectors isolates the system on high temperatures in the RWCS equipment room. A second set of detectors isolates the system on detecting an abnormal increase in the heat added to the RWCS equipment room; it trips on a high temperature differential between the inlet and outlet ventilation ducts for this room.

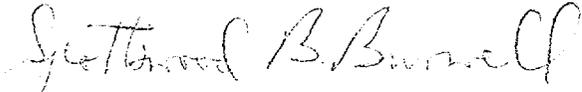
The three trip setpoints provide isolation for the full range of breaks outside containment. The proposed change does not result in any decrease in the protection provided by the three isolation trips because the smaller breaks previously detected by the 7% differential flow setpoint are still detected by the two temperature setpoints. The two temperature trips initiate automatic isolation of the RWCS as before. We conclude that the requested change is acceptable. The change in setpoint also requires a change in the bases for this specification to delete the reference to the  $\leq 7\%$  setpoint. The bases now include a statement concerning the objective of avoiding spurious trips due to the selection of an unnecessarily low setpoint. These changes are shown by the revision marks on Technical Specification pages 3.2-3 and 3.2-52 attached to the license amendment.

### 3.0 CONCLUSION

This change to the Technical Specification providing an increased range on the trip setting for the differential flow isolation signal to the RWCS does not compromise the safe operation of the Edwin I. Hatch Nuclear Plant Unit 1.

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 of 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.



Spottswood B. Burwell, Project Manager  
Light Water Reactors Branch 2-1  
Directorate of Licensing



John F. Stolz, Chief  
Light Water Reactors Branch 2-1  
Directorate of Licensing

Dated: NOV 13 1974

UNITED STATES ATOMIC ENERGY COMMISSION

DOCKET NO. 50-321

GEORGIA POWER COMPANY

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY  
OPERATING LICENSE

Notice is hereby given that the U. S. Atomic Energy Commission (the Commission) has issued Amendment No. 4 to Facility Operating License No. DPR-57 issued to the Georgia Power Company which revised Technical Specifications 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 permits an increased range on the trip setting for the differential flow isolation signal to the reactor water cleanup system, thereby avoiding spurious trips of the system which have occurred during operation at the setting presently allowed by the Technical Specifications.

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 required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment.

For further details with respect to this action, see (1) the application for amendment dated October 8, 1974, (2) Amendment No. 4 to License No. DPR-57, with any attachments, 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. Atomic Energy Commission, Washington, D. C. 20545, Attention: Deputy Director for Reactor Projects, Directorate of Licensing - Regulation.

Dated at Bethesda, Maryland, this 13<sup>th</sup> day of November, 1974.

FOR THE ATOMIC ENERGY COMMISSION

Original Signed by  
John F. Stolz

John F. Stolz, Chief  
Light Water Reactor Projects Branch 2-1  
Directorate of Licensing