November 17, 1986

Docket No. 50-366

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Mr. J. T. Beckham, Jr.
Vice President - Nuclear Generation
Georgia Power Company
P. O. Box 4545
Atlanta, Georgia 30302

Dear Mr. Beckham:

The Commission has issued the enclosed Amendment No. 69 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amendment consists of changes to the Technical Specifications in response to your application dated April 23, 1984 as superseded July 18, 1986.

The amendment adds and clarifies operability and surveillance requirements pertaining to the Anticipated Transient Without Scram and End-of-Cycle Recirculation Pump Trip instrumentation.

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

Sincerely,

Original signed by

George W. Rivenbark, Project Manager
BWR Project Directorate #2
Division of BWR Licensing

Enclosures:
1. Amendment No. 69 to NPF-5
2. Safety Evaluation

cc w/enclosures:
See next page

BWR:PD#2	BWR:PD#2	OGC	BWR:PD#2
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PDR ADOCK 05000366
P PDR

Mr. J. T. Beckham, Jr.
Georgia Power Company

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

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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. 50-366

EDWIN I. HATCH NUCLEAR PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 69
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   A. The application for amendment by Georgia Power Company, et al., (the licensee) dated April 23, 1984 as superseded July 18, 1986 complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations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. NPF-5 is hereby amended to read as follows:

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P PDR

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amenment No. 69, 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

Daniel R. Muller

Daniel R. Muller, Director
BWR Project Directorate #2
Division of BWR Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: November 17, 1986

ATTACHMENT TO LICENSE AMENDMENT NO. 69

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 a vertical line indicating the area of change. The overleaf pages are provided for convenience

Remove	Insert
V	V
VI	VI
3/4 3-2	3/4 3-2
3/4 3-3	3/4 3-3
3/4 3-5	3/4 3-5
	3/4 3-66*
	3/4 3-67*
	3/4 3-68*
	3/4 3-69*
	3/4 3-70*
	3/4 3-71*
	3/4 3-72*
	3/4 3-73*
	3/4 3-74*
	3/4 3-75*
	B 3/4 3-5a
	B 3/4 3-5b

*Page added

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

SECTION		PAGE
3/4.3 INSTRUMENTATION		
3/4.3.1	REACTOR PROTECTION SYSTEM INSTRUMENTATION	3/4 3-1
3/4.3.2	ISOLATION ACTUATION INSTRUMENTATION	3/4 3-9
3/4.3.3	EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION	3/4 3-24
3/4.3.4	REACTOR CORE ISOLATION COOLING SYSTEM ACTUATION INSTRUMENTATION	3/4 3-33
3/4.3.5	CONTROL ROD WITHDRAWAL BLOCK INSTRUMENTATION	3/4 3-37
3/4.3.6	MONITORING INSTRUMENTATION	
	Radiation Monitoring Instrumentation	3/4 3-43
	Seismic Monitoring Instrumentation	3/4 3-47
	Remote Shutdown Monitoring Instrumentation	3/4 3-50
	Post-Accident Monitoring Instrumentation	3/4 3-53
	Source Range Monitors	3/4 3-56
	Traversing Incore Probe System	3/4 3-57
	Chlorine Detectors	3/4 3-58
	Fire Detection Instrumentation	3/4 3-59
	Radioactive Liquid Effluent Instrumentation	3/4 3-60a
	Radioactive Gaseous Effluent Instrumentation	3/4 3-60f
3/4.3.7	TURBINE OVERSPEED PROTECTION SYSTEM	3/4 3-61
3/4.3.8	DEGRADED STATION VOLTAGE PROTECTION INSTRUMENTATION	3/4 3-63
3/4.3.9	RECIRCULATION PUMP TRIP ACTUATION INSTRUMENTATION	3/4 3-66
3/4.4 REACTOR COOLANT SYSTEM		
3/4.4.1	RECIRCULATION SYSTEM	
	Recirculation Loops	3/4 4-1

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

SECTION		PAGE
REACTOR COOLANT SYSTEM (Continued)		
	Jet Pumps	3/4 4-2
	Idle Recirculation Loop Startup	3/4 4-3
3/4.4.2	SAFETY/RELIEF VALVES	3/4 4-4
3/4 4.3	REACTOR COOLANT SYSTEM LEAKAGE	
	Leakage Detection Systems	3/4 4-5
	Operational Leakage	3/4 4-6
3/4.4.4	CHEMISTRY	3/4 4-7
3/4.4.5	SPECIFIC ACTIVITY	3/4 4-10
3/4.4.6	PRESSURE/TEMPERATURE LIMITS	
	Reactor Coolant System	3/4 4-13
	Reactor Steam Dome	3/4 4-18
3/4.4.7	MAIN STEAM LINE ISOLATION VALVES	3/4 4-19
3/4.4.8	STRUCTURAL INTEGRITY	3/4 4-20
3/4.5 EMERGENCY CORE COOLING SYSTEMS		
3/4.5.1	HIGH PRESSURE COOLANT INJECTION SYSTEM	3/4 5-1
3/4.5.2	AUTOMATIC DEPRESSURIZATION SYSTEM	3/4 5-3
3/4.5.3	LOW PRESSURE CORE COOLING SYSTEMS	
	Core Spray System	3/4 5-4
	Low Pressure Coolant Injection System	3/4 5-7
3/4.5.4	SUPPRESSION CHAMBER	3/4 5-9

3/4.3 INSTRUMENTATION

3/4.3.1 REACTOR PROTECTION SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.1 As a minimum, the reactor protection system instrumentation channels shown in Table 3.3.1-1 shall be OPERABLE with the REACTOR PROTECTION SYSTEM RESPONSE TIME as shown in Table 3.3.1-2. Set points and interlocks are given in Table 2.2.1-1.

APPLICABILITY: As shown in Table 3.3.1-1.

ACTION:

a. With the requirements for the minimum number of OPERABLE channels not satisfied for one trip system, place at least one inoperable channel in the tripped condition within one hour.

b. With the requirements for the minimum number of OPERABLE channels not satisfied for both trip systems, place at least one inoperable channel in at least one trip system* in the tripped condition within one hour and take the ACTION required by Table 3.3.1-1.

c. The provisions of Specification 3.0.3 are not applicable in OPERATIONAL CONDITION 5.

SURVEILLANCE REQUIREMENTS

4.3.1.1 Each reactor protection system instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTION TEST and CHANNEL CALIBRATION operations during the OPERATIONAL CONDITIONS and at the frequencies shown in Table 4.3.1-1.

4.3.1.2 LOGIC SYSTEM FUNCTIONAL TESTS and simulated automatic operation of all channels shall be performed at least once per 18 months and shall include calibration of time delay relays and timers necessary for proper functioning of the trip system.

4.3.1.3 The REACTOR PROTECTION SYSTEM RESPONSE TIME of each reactor trip function of Table 3.3.1-2 shall be demonstrated to be within its limit at least once per 18 months. Each test shall include at least one logic train such that both logic trains are tested at least once per 36 months and one channel per function such that all channels are tested at least once every N times 18 months where N is the total number of redundant channels in a specific reactor trip function.

*If both channels are inoperable in one trip system, select at least one inoperable channel in that trip system to place in the tripped conditions, except when this could cause the Trip Function to occur.

TABLE 3.3.1-1

REACTOR PROTECTION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	APPLICABLE OPERATIONAL CONDITIONS	MINIMUM NUMBER OPERABLE CHANNELS PER TRIP SYSTEM(a)	ACTION
1. Intermediate Range Monitors: (2C51-K601, A, B, C, D, E, F, G, H)			
a. Neutron Flux - High	2[c], 5[b]	3	1
	3, 4	2	2
b. Inoperative	2,5[b]	3	1
	3, 4	2	2
2. Average Power Range Monitor: (2C51-K605 A, B, C, D, E, F)			
a. Neutron Flux - Upscale, 15%	2, 5	2	1
b. Flow Referenced Simulated Thermal Power - Upscale	1	2	3
c. Fixed Neutron Flux - Upscale, 118%	1	2	3
d. Inoperative	1, 2, 5	2	4
e. Downscale	1	2	3
f. LPRM	1, 2, 5	(d)	NA
3. Reactor Vessel Steam Dome Pressure - High (2B21-N678 A, B, C, D)	1, 2[e]	2	5
4. Reactor Vessel Water Level - Low (Level 3) (2B21-N680 A, B, C, D)	1, 2	2	5
5. Main Steam Line Isolation Valve - Closure (NA)	1[f]	4	3
6. Main Steam Line Radiation - High (2D11-K603 A, B, C, D)	1, 2[e]	2	6
7. Drywell Pressure - High (2C71-N650 A, B, C, D)	1, 2[g]	2	5

TABLE 3.3.1-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	APPLICABLE OPERATIONAL CONDITIONS	MINIMUM NUMBER OPERABLE CHANNELS PER TRIP SYSTEM(a)	ACTION
8. Scram Discharge Volume Water Level - High (2C11-N013A,B,C,D)	1, 2, 5[h]	2	4
Level - High (2C11-N060A,B,C,D)	1, 2, 5	2	4
9. Turbine Stop Valve - Closure (NA)	1[i]	4	7
10. Turbine Control Valve Fast Closure, Trip Oil Pressure - Low (2C71-N005A,B,C,D)	1[i]	2	7
11. Reactor Mode Switch in Shutdown Position (NA)	1, 2, 3, 4, 5	1	8
12. Manual Scram (NA)	1, 2, 3, 4, 5	1	9

TABLE 3.3.1-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION

ACTION

ACTION 1 - In OPERATIONAL CONDITION 2, be in at least HOT SHUTDOWN within 6 hours.

In OPERATIONAL CONDITION 5, suspend all operations involving CORE ALTERATIONS or postive reactivity changes and fully insert all insertable control rods within one hour.

ACTION 2 - Lock the reactor mode switch in the Shutdown position within one hour.

ACTION 3 - Be in at least STARTUP within 2 hours.

ACTION 4 - In OPERATIONAL CONDITION 1 or 2, be in at least HOT SHUTDOWN within 6 hours.

In OPERATIONAL CONDITION 5, suspend all operations involving CORE ALTERATIONS or positive reactivity changes and fully insert all insertable control rods within one hour.

ACTION 5 - Be in at least HOT SHUTDOWN within 6 hours.

ACTION 6 - Be in STARTUP with the main steam line isolation valves closed within 2 hours or in at least HOT SHUTDOWN within 6 hours.

ACTION 7 - Initiate a reduction in THERMAL POWER within 15 minutes and be at less than 30% of RATED THERMAL POWER within 2 hours.

ACTION 8 - In OPERATIONAL CONDITION 1 or 2, be in at least HOT SHUTDOWN within 6 hours.

In OPERATIONAL CONDITION 3 or 4, immediately and at least once per 12 hours verify that all control rods are fully inserted.

In OPERATIONAL CONDITION 5, suspend all operations involving CORE ALTERATIONS or positive reactivity changes and fully insert all insertable control rods within one hour.

TABLE 3.3.1-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION

ACTION 9 - In OPERATIONAL CONDITION 1 or 2, be in at least HOT SHUTDOWN within 6 hours.

In OPERATIONAL CONDITION 3 or 4, lock the reactor mode switch in the Shutdown position within one hour.

In OPERATIONAL CONDITION 5, suspend all operations involving CORE ALTERATIONS or positive reactivity changes and fully insert all insertable control rods within one hour.

TABLE NOTATIONS

a. A channel may be placed in an inoperable status for up to 2 hours for required surveillance without placing the trip system in the tripped condition provided at least one OPERABLE channel in the same trip system is monitoring that parameter.

b. The "shorting links" shall be removed from the RPS circuitry during CORE ALTERATIONS and shutdown margin demonstrations performed in accordance with Specification 3.10.3.

c. The IRM scrams are automatically bypassed when the reactor vessel mode switch is in the Run position and all APRM channels are OPERABLE and on scale.

d. An APRM channel is inoperable if there are less than 2 LPRM inputs per level or less than eleven LPRM inputs to an APRM channel.

e. These functions are not required to be OPERABLE when the reactor pressure vessel head is unbolted or removed.

f. This function is automatically bypassed when the reactor mode switch is in other than the Run position.

g. This function is not required to be OPERABLE when PRIMARY CONTAINMENT INTEGRITY is not required.

h. With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.11.1 or 3.9.11.2.

i. These functions are bypassed when turbine first stage pressure is ≤250* psig, equivalent to THERMAL POWER less than 30% of RATED THERMAL POWER.

*Initial setpoint. Final setpoint to be determined during startup testing.

TABLE 3.3.1-2

REACTOR PROTECTION SYSTEM RESPONSE TIMES

FUNCTIONAL UNIT	RESPONSE TIME (Seconds)
1. Intermediate Range Monitors:	
a. Neutron Flux - High*	NA
b. Inoperative	NA
2. Average Power Range Monitor:*	
a. Neutron Flux - Upscale, 15%	NA
b. Flow Referenced Simulated Thermal Power - Upscale	≤ 0.09**
c. Fixed Neutron Flux - Upscale, 118%	≤ 0.09
d. Inoperative	NA
d. Inoperative	NA
e. Downscale	NA
f. LPRM	NA
3. Reactor Vessel Steam Dome Pressure - High	≤ 0.55
4. Reactor Vessel Water Level - Low	≤ 1.05
5. Main Steam Line Isolation Valve -Closure	≤ 0.06
6. Main Steam Line Radiation - High	NA
7. Drywell Pressure - High	NA
8. Scram Discharge Volume Water Level - High	NA
9. Turbine Stop Valve - Closure	≤ 0.06
10. Turbine Control Valve Fast Closure, Trip Oil Pressure - Low	≤ 0.08#
11. Reactor Mode Switch in Shutdown Position	NA
12. Manual Scram	NA

*Neutron detectors are exempt from response time testing. Response time shall be measured from detector output or input of first electronic component in channel.

**Not including simulated thermal power time constant.

#Measured from start of turbine control valve closure.

TABLE 4.3.8-1

DEGRADED STATION VOLTAGE PROTECTION INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

Ref. No. (a)	Instrument (b)	Instrument Check Minimum Frequency	Instrument Functional Test Minimum Frequency	Instrument Calibration Minimum Frequency
1	4.16 kv Emergency Bus Undervoltage Relay (Loss of Voltage Condition)	N/A	Once/month	Once/operating cycle
2	4/16 kv Emergency Bus Undervoltage Relay (Degraded Voltage Condition)	N/A	Once/month	Once/operating cycle

NOTES FOR TABLE 4.3.8-1

a. The column entitled "Ref. No." is only for convenience so that a one-to-one relationship can be established between items in Table 3.3.8-1 and items in Table 4.3.8-1.

b. Surveillance of this instrumentation is required during reactor startup, power operation, and hot shutdown.

3/4.3.9 RECIRCULATION PUMP TRIP ACTUATION INSTRUMENTATION

ATWS RECIRCULATION PUMP TRIP SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.9.1 The anticipated transient without scram recirculation pump trip (ATWS-RPT) system instrumentation channels shown in Table 3.3.9.1-1 shall be OPERABLE with their trip setpoints set consistent with values shown in the Trip Setpoint column of Table 3.3.9.1-2.

APPLICABILITY: OPERATIONAL CONDITION 1.

ACTION:

a. With an ATWS recirculation pump trip system instrumentation channel trip setpoint less conservative than the value shown in the Allowable Values column of Table 3.3.9.1-2, declare the channel inoperable until the channel is restored to OPERABLE status with the channel trip setpoint adjusted consistent with the Trip Setpoint value.

b. With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip System requirement for one or both trip systems, declare the affected trip system(s) inoperable.

c. With one trip system inoperable, restore the inoperable trip system to OPERABLE status within 14 days or be in at least STARTUP within the next 6 hours.

d. With both trip systems inoperable, restore at least one trip system to OPERABLE status within one hour or be in at least STARTUP within the next 6 hours.

SURVEILLANCE REQUIREMENTS

4.3.9.1.1 Each ATWS recirculation pump trip system instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST, and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3.9.1-1.

4.3.9.1.2 LOGIC SYSTEM FUNCTIONAL TESTS and simulated automatic operation of all channels shall be performed at least once per 18 months.

TABLE 3.3.9.1-1

ATWS RECIRCULATION PUMP TRIP SYSTEM INSTRUMENTATION

TRIP FUNCTION	MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM
1. Reactor Vessel Water Level - Low Low, Level 2	1
2. Reactor Vessel Pressure - High	1

TABLE 3.3.9.1-2

ATWS RECIRCULATION PUMP TRIP SYSTEM INSTRUMENTATION SETPOINTS

TRIP FUNCTION	TRIP SETPOINT	ALLOWABLE VALUE
1. Reactor Vessel, Water Level - Low Low, Level 2	≥ -55 inches *	≥ -55 inches
2. Reactor Vessel Pressure - High	≤ 1120 psig	≤ 1120 psig

*See Bases Figure B3/4 3-1.

TABLE 4.3.9.1-1

ATWS RECIRCULATION PUMP TRIP ACTUATION INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

TRIP FUNCTION	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION
1. Reactor Vessel Water Level - Low Low, Level 2	S	R	R
2. Reactor Vessel Pressure - High	NA	R	R

END-OF-CYCLE RECIRCULATION PUMP TRIP SYSTEM INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.9.2 The end-of-cycle recirculation pump trip (EOC-RPT) system instrumentation channels shown in Table 3.3.9.2-1 shall be OPERABLE with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3.9.2-2 and with the END-OF-CYCLE RECIRCULATION PUMP TRIP SYSTEM RESPONSE TIME as shown in Table 3.3.9.2-3.

APPLICABILITY: OPERATIONAL CONDITION 1, when THERMAL POWER is greater than or equal to 30% of RATED THERMAL POWER.

ACTION:

a. With an end-of-cycle recirculation pump trip system instrumentation channel trip setpoint less conservative than the value shown in the Allowable Values column of Table 3.3.9.2-2, declare the channel inoperable until the channel is restored to OPERABLE status with the channel setpoint adjusted consistent with the Trip Setpoint value.

b. With the number of OPERABLE channels one less than required by the Minimum OPERABLE Channels per Trip System requirement for one or both trip systems, place the inoperable channel(s) in the tripped condition within one hour.

c. With the number of OPERABLE channels two or more less than required by the Minimum OPERABLE Channels per Trip System requirement for one trip system and:

   1. If the inoperable channels consist of one turbine control valve channel and one turbine stop valve channel, place both inoperable channels in the tripped condition within one hour.

   2. If the inoperable channels include two turbine control valve channels or two turbine stop valve channels, declare the trip system inoperable.

d. With one trip system inoperable, restore the inoperable trip system to OPERABLE status within 72 hours or reduce THERMAL POWER to less than 30% of RATED THERMAL POWER within the next 6 hours.

e. With both trip systems inoperable, restore at least one trip system to OPERABLE status within one hour or reduce THERMAL POWER to less than 30% of RATED THERMAL POWER within the next 6 hours.

SURVEILLANCE REQUIREMENTS

4.3.9.2.1 Each end-of-cycle recirculation pump trip system instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3.9.2.1-1.

4.3.9.2.2 LOGIC SYSTEM FUNCTIONAL TESTS and simulated automatic operation of all channels shall be performed at least once per 18 months.

4.3.9.2.3 The END-OF-CYCLE RECIRCULATION PUMP TRIP SYSTEM RESPONSE TIME of each trip function shown in Table 3.3.9.2-3 shall be demonstrated to be within its limit at least once per 18 months. Each test shall include at least the logic of one type of channel input, turbine control valve fast closure or turbine stop valve closure, such that both types of channel inputs are tested at least once per 36 months.

TABLE 3.3.9.2-1

END-OF-CYCLE RECIRCULATION PUMP TRIP SYSTEM INSTRUMENTATION

TRIP FUNCTION	MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM[a]
1. Turbine Stop Valve - Closure	2[b]
2. Turbine Control Valve - Fast Closure	2[b]

[a] A trip system may be placed in an inoperable status for up to 2 hours for required surveillance provided that the other trip system is OPERABLE.

[b] This function shall be automatically bypassed when turbine first stage pressure is less than or equal to 250 psig, equivalent to THERMAL POWER less than 30 % of RATED THERMAL POWER.

TABLE 3.3.9.2-2

END-OF-CYCLE RECIRCULATION PUMP TRIP SETPOINTS

TRIP FUNCTION	TRIP SETPOINT	ALLOWABLE VALUE
1. Turbine Stop Valve - Closure	≤ 10% closed	≤ 10% closed
2. Turbine Control Valve - Fast Closure	≥ 600 psig	≥ 600 psig

TABLE 3.3.9.2-3

END-OF-CYCLE RECIRCULATION PUMP TRIP SYSTEM RESPONSE TIME

TRIP FUNCTION	RESPONSE TIME (Milliseconds)
1. Turbine Stop Valve - Closure	≤ 135
2. Turbine Control Valve - Fast Closure	≤ 135

TABLE 4.3.9.2.1-1

END-OF-CYCLE RECIRCULATION PUMP TRIP SYSTEM SURVEILLANCE REQUIREMENTS

TRIP FUNCTION	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION
1. Turbine Stop Valve - Closure	M*	R
2. Turbine Control Valve - Fast Closure	M*	R

*The Recirculation Pump Breakers need not be tripped on part of the Channel functional Test. All channel alarm functions and only that portion of the trip functions which can be tested without causing a trip of the Breakers (and Recirculation Pumps) need be tested during the Channel Functional Test.

MONITORING INSTRUMENTATION (Continued)

FIRE DETECTION INSTRUMENTATION (Continued)

In the event that a portion of the fire detection instrumentation is inoperable, increasing the frequency of fire patrols in the affected areas is required to provide detection capability until the inoperable instrumentation is restored to OPERABILITY.

3/4.3.6.9 RADIOACTIVE LIQUID EFFLUENT INSTRUMENTATION

The radioactive liquid effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in liquid effluents during actual or potential releases of liquid effluents. The alarm/trip setpoints for these instruments shall be calculated in accordance with the methods in the OFFSITE DOSE CALCULATION MANUAL (ODCM) to ensure that the alarm/trip will occur prior to exceeding the limits of 10 CFR Part 20. The OPERABILITY and use of this instrumentation is consistent with the requirements of General Design Criteria 60, 63, and 64 of Appendix A to 10 CFR Part 50.

3/4.3.6.10 RADIOACTIVE GASEOUS EFFLUENT INSTRUMENTATION

The radioactive gaseous effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in gaseous effluents during actual or potential releases of gaseous effluents. The alarm/trip setpoints for these instruments shall be calculated in accordance with the methods in the ODCM to ensure that the alarm/trip will occur prior to exceeding the limits of 10 CFR Part 20. The monitoring instrumentation includes provisions for monitoring (and controlling) the concentrations of potentially explosive gas mixtures in the main condenser offgas treatment system. The OPERABILITY and use of this instrumentation is consistent with the requirements of General Design Criteria 60, 63, and 64 of Appendix A to 10 CFR Part 50.

3/4.3.7 TURBINE OVERSPEED PROTECTION SYSTEM

This specification is provided to ensure that the turbine overspeed protection system instrumentation and the turbine speed control valves are OPERABLE and will protect the turbine from excessive overspeed. Protection from turbine excessive overspeed is required since excessive overspeed of the turbine could generate potentially damaging missiles which could impact and damage safety-related components, equipment or structures.

3/4.3.8 DEGRADED STATION VOLTAGE PROTECTION INSTRUMENTATION

The undervoltage relays shall automatically initiate the disconnection of offsite power sources whenever the voltage setpoint and time delay limits have been exceeded. This action shall provide voltage protection for the emergency power systems by preventing sustained degraded voltage conditions due to the offsite power source and interaction between the offsite and onsite emergency power systems. The undervoltage relays have a time delay characteristic that provides protection against both a loss of voltage and degraded voltage condition and thus minimizes the effect of short duration disturbances without exceeding the maximum time delay, including margin, that is assumed in the FSAR accident analyses.

3/4.3.9 RECIRCULATION PUMP TRIP ACTUATION INSTRUMENTATION

The anticipated transient without scram (ATWS) recirculation pump trip system provides a means of limiting the consequences of the unlikely occurrence of a failure to scram during an anticipated transient. The response of the plant to this postulated event falls within the envelope of study events in General Electric Company Topical Report NEDO-10349, dated March 1971, and NEDO-24222, dated December 1979.

The end-of-cycle recirculation pump trip (EOC-RPT) system is a part of the Reactor Protection System and is an essential safety supplement to the reactor trip. The purpose of the EOC-RPT is to recover the loss of thermal margin which occurs at the end-of-cycle. The physical phenomenon involved is that the void reactivity feedback due to a pressurization transient can add positive reactivity to the reactor system at a faster rate than the control rods add negative scram reactivity. Each EOC-RPT system trips both recirculation pumps, reducing coolant flow in order to reduce the void collapse in the core during two of the most limiting pressurization events. The two events for which the EOC-RPT protective feature will function are closure of the turbine stop valves and fast closure of the turbine control valves.

A fast closure sensor from each of two turbine control valves provides input to the EOC-RPT system; a fast closure sensor from each of the other two turbine control valves provides input to the second EOC-RPT system. Similarly, a limit switch for each of two turbine stop valves provides input to one EOC-RPT system; a limit switch from each of the other two stop valves provides input to the other EOC-RPT system. For each EOC-RPT system, the sensor relay contacts are arranged to form a 1-out-of-2 twice logic for the fast closure of turbine control

3/4.3.9 RECIRCULATION PUMP TRIP ACTUATION INSTRUMENTATION (Continued)

valves and a 2-out-of-2 logic for the turbine stop valves. The operation of either logic will actuate the EOC-RPT system and trip both recirculation pumps.

Each EOC-RPT system may be manually bypassed by use of a keyswitch which is administratively controlled. The manual bypasses and the automatic Operating Bypass at less than 30% of RATED THERMAL POWER are annunciated in the control room.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 69 TO

FACILITY OPERATING LICENSE NO. NPF-5

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

EDWIN I. HATCH NUCLEAR PLANT, UNIT NO. 2

DOCKET NO. 50-366

1.0 INTRODUCTION

By letter dated July 18, 1986 (Reference 1), the Georgia Power Company (GPC) requested changes to the Hatch Plant Unit 2 Technical Specifications that (1) would add and/or clarify operability and surveillance requirements pertaining to the Anticipated Transient Without Scram (ATWS) Recirculation Pump Trip (RPT) instrumentation as previously proposed in GPC's submittal of April 23, 1984 (Reference 2) and (2) add a new section to provide explicit operability and surveillance requirements for the End-of-Cycle (EOC) RPT function in place of footnotes.

2.0 EVALUATION

The ATWS RPT instruments are designed to trip the recirculation pump motor-generator set drive motor breakers to reduce reactivity during postulated ATWS events. Presently these instruments are identified by footnote "j" to Table 3.3.1-1, "Reactor Protection System Instrumentation." None of the operability and surveillance requirements are provided; those actions and surveillance requirements provided in Tables 3.3.1-1 and 4.3.1-1 are applicable only to the Reactor Protection System (RPS) instrumentation. Because of this situation, the Hatch Unit 2 Plant Procedures now implement requirements similar to those in the Hatch Unit 1 Technical Specifications, which do provide explicit operability and surveillance requirements for the RPT instrumentation.

The proposed change 1 adds a new section 3/4.3.9.1, "ATWS Recirculation Pump Trip Actuation Instrumentation," providing operability requirements, action statements, instrument setpoints, and surveillance requirements for the ATWS RPT instruments. These requirements are consistent with those in the Hatch Unit 1 Technical Specifications already implemented in the Unit 2 procedures.

The proposed change 2 adds a new section 3/4.3.9.2, "End-of-Cycle Recirculation Pump Trip System Instrumentation," providing explicit

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operability and surveillance requirements for the EOC RPT function. The purpose of the EOC RPT is to recover the loss of thermal margin occurring at the end of cycle. Each EOC RPT system trips both recirculation pumps, reducing coolant flow in order to reduce the void collapse in the core during a limiting pressurization transient near the end of cycle. Presently, these instruments are identified by footnote "k" to Table 3.3.1-1, "Reactor Protection System Instrumentation." Similar to change 1 described above, none of the operability and surveillance requirements are provided. The proposed change 2 will provide explicit requirements for the EOC RPT instrumentation.

These changes add explicit operability and surveillance requirements for instrumentation which provides the ATWS RPT and the EOC RPT functions. These instruments are presently footnoted in the Technical Specifications, but no surveillance requirements are provided. The changes are administrative in nature, since the proposed requirements are already being met procedurally.

On the basis of the above discussion we conclude that these proposed changes are acceptable.

3.0 ENVIRONMENTAL CONSIDERATIONS

This amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and adds surveillance requirements. 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 should be no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 20 CFR 51.22(b), no environmental impact statement nor environmental assessment need be prepared in connection with the issuance of this amendment.

4.0 CONCLUSION

On the basis of the considerations discussed above, the staff has concluded 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.

Principal Contributor: D. Yue

Dated: November 17, 1986

5.0 REFERENCES

1. Letter from J. T. Beckham, Jr., Georgia Power Company, to D. Muller, NRC, July 18, 1986.

2. Letter from J. T. Beckham, Jr., Georgia Power Company, to J. F. Stoltz, NRC, April 23, 1984.