



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. 88  
License No. NPF-5

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment to the Edwin I. Hatch Nuclear Plant, Unit 2 (the facility) Facility Operating License No. NPF-5 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, 1987, and supplemented November 23, 1987, 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.

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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:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 88, 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

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Lawrence P. Crocker, Acting Director  
Project Directorate II-3  
Division of Reactor Projects-I/II

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: January 13, 1988

PD#II-3/DRP-I/II  
MRood/mac  
12/28/87

*MC*  
PD#II-3/DRP-I/II  
LCrocker  
12/29/87

OGC-Bethesda  
*Bethesda*  
12/30/87

*MC*  
PD#II-3/DRP-I/II  
Acting PD  
12/29/87

ATTACHMENT TO LICENSE AMENDMENT NO. 88

FACILITY OPERATING LICENSE NO. NPF-5

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Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised pages are identified by amendment number and contain vertical lines indicating the area of change.

<u>Remove</u> <u>Page</u>	<u>Insert</u> <u>Page</u>
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3/4 3-5	3/4 3-5
3/4 3-11	3/4 3-11
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TABLE 2.2.1-1  
 REACTOR PROTECTION SYSTEM INSTRUMENTATION SETPOINTS

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
1. Intermediate Range Monitor, Neutron Flux-High (2C51-K601 A,B,C,D,E,F,G,H)	≤ 120/125 divisions of full scale	≤ 120/125 divisions of full scale
2. Average Power Range Monitor: (2C51-K605 A,B,C,D,E,F)		
a. Neutron Flux-Upscale, 15%	≤ 15/125 divisions of full scale	≤ 20/125 divisions of full scale
b. Flow Referenced Simulated Thermal Power-Upscale	≤ (0.58 W + 59% - 0.58ΔW)** with a maximum ≤ 113.5% of RATED THERMAL POWER	≤ (0.58 W + 62% - 0.58ΔW)** with a maximum ≤ 115.5% of RATED THERMAL POWER
c. Fixed Neutron Flux-Upscale, 118%	≤ 118% of RATED THERMAL POWER	≤ 120% of RATED THERMAL POWER
3. Reactor Vessel Steam Dome Pressure - High (2B21-N678 A,B,C,D)	≤ 1054 psig	≤ 1054 psig
4. Reactor Vessel Water Level - Low (Level 3) (2B21-N680 A,B,C,D)	≥ 10 inches above instrument zero*	≥ 10 inches above instrument zero*
5. Main Steam Line Isolation Valve - Closure (NA)	≤ 10% closed	≤ 10% closed
6. Main Steam Line Radiation - High (2D11-K603A,B,C,D)	≤ 3 x full-power background***	≤ 3 x full-power background***
7. Drywell Pressure - High (2C71-N650A,B,C,D)	≤ 1.92 psig	≤ 1.92 psig

\*See Bases Figure B 3/4 3-1.

\*\* W = Total loop recirculation flow rate in percent of rated. Rated loop recirculation flow is equal to 34.2 MLB/hr.

ΔW = Maximum measured difference between two-loop and single-loop drive flow for the same core flow in percent of rated recirculation flow for single-loop operation. The value is zero for two-loop operation.

\*\*\*Within 24 hours prior to the planned start of the hydrogen injection test with the reactor power at greater than 20% rated power, the normal full-power radiation background level and associated trip setpoints may be changed based on a calculated value of the radiation level expected during the test. The background radiation level and associated trip setpoints may be adjusted during the test based on either calculations or measurements of actual radiation levels resulting from hydrogen injection. The background radiation level shall be determined and associated trip setpoints shall be set within 24 hours of re-establishing normal radiation levels after completion of hydrogen injection and prior to establishing reactor power levels below 20% rated power.

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 <sup>(c)</sup> , 5 <sup>(b)</sup>	3	1
b. Inoperative	3, 4	2	2
	2, 5 <sup>(b)</sup>	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 <sup>(*)</sup>	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 <sup>(*)</sup>	4	3
6. Main Steam Line Radiation - High (2D11-K603 A, B, C, D)	1, 2 <sup>(*)</sup> , (j)	2	6
7. Drywell Pressure - High (2C71-N650 A, B, C, D)	1, 2 <sup>(*)</sup>	2	5

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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  $\leq 250^*$  psig, equivalent to THERMAL POWER less than 30% of RATED THERMAL POWER.
- j. Within 24 hours prior to the planned start of the hydrogen injection test with the reactor power at greater than 20% rated power, the normal full-power radiation background level and associated trip setpoints may be changed based on a calculated value of the radiation level expected during the test. The background radiation level and associated trip setpoints may be adjusted during the test based on either calculations or measurements of actual radiation levels resulting from hydrogen injection. The background radiation level shall be determined and associated trip setpoints shall be set within 24 hours of re-establishing normal radiation levels after completion of hydrogen injection and prior to establishing reactor power levels below 20% rated power.

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

TABLE 3.3.2-1  
ISOLATION ACTUATION INSTRUMENTATION

TRIP FUNCTION	VALVE GROUPS OPERATED BY SIGNAL (a)	MINIMUM NUMBER OPERABLE CHANNELS PER TRIP SYSTEM (b) (c)	APPLICABLE OPERATIONAL CONDITION	ACTION
1. PRIMARY CONTAINMENT ISOLATION				
a. Reactor Vessel Water Level				
1. Low (Level 3) (2B21-N680 A, B, C, D)	2, 6, 10, 11, 12	2	1, 2, 3	20
2. Low-Low (Level 2) (2B21-N682 A, B, C, D)	5, *	2	1, 2, 3	20
3. Low-Low-Low (Level 1) (2B21-N681 A, B, C, D)	1	2	1, 2, 3	20
b. Drywell Pressure - High (2C71-N650 A, B, C, D)	2, 6, 7, 10, 12, *	2	1, 2, 3	20
c. Main Steam Line				
1. Radiation - High (2D11-K603 A, B, C, D)	1, 12, (d)	2	1, 2, 3, (k)	21
2. Pressure - Low (2B21-N015 A, B, C, D)	1	2	1	22
3. Flow - High (2B21-N686 A, B, C, D) (2B21-N687 A, B, C, D) (2B21-N688 A, B, C, D) (2B21-N689 A, B, C, D)	1,	2/line	1, 2, 3	21
d. Main Steam Line Tunnel Temperature - High (2B21-N623 A, B, C, D) (2B21-N624 A, B, C, D) (2B21-N625 A, B, C, D) (2B21-N626 A, B, C, D)	1	2/line (e)	1, 2, 3	21
e. Condenser Vacuum - Low (2B21-N056 A, B, C, D)	1	2	1, 2, (f), 3 (f)	23
f. Turbine Building Area Temperature - High (2U61-R001, 2U61-R002, 2U61-R003, 2U61-R004)	1	2 (g)	1, 2, 3	21
g. Drywell Radiation - High (2D11-K621 A, B)	(j)	1	1, 2, 3	29

ISOLATION ACTUATION INSTRUMENTATIONACTION

- ACTION 20 - Be in at least HOT SHUTDOWN within 6 hours and in COLD SHUTDOWN within the next 30 hours.
- ACTION 21 - Be in at least STARTUP with the main steam line isolation valves closed within 2 hours or be in at least HOT SHUTDOWN within 6 hours and in COLD SHUTDOWN within the next 30 hours.
- ACTION 22 - Be in at least STARTUP within 2 hours.
- ACTION 23 - Be in at least STARTUP with the Group 1 isolation valves closed within 2 hours or in at least HOT SHUTDOWN within 6 hours.
- ACTION 24 - Establish SECONDARY CONTAINMENT INTEGRITY with the standby gas treatment system operating within one hour.
- ACTION 25 - Isolate the reactor water cleanup system.
- ACTION 26 - Close the affected system isolation valves and declare the affected system inoperable.
- ACTION 27 - Verify power availability to the bus at least once per 12 hours or close the affected system isolation valve and declare the affected system inoperable.
- ACTION 28 - Close the shutdown cooling supply and reactor vessel head spray isolation valves unless reactor steam dome pressure  $\leq$  145 psig.
- ACTION 29 - Either close the affected isolation valves within 24 hours or be in HOT SHUTDOWN within the next 6 hours and in COLD SHUTDOWN within the next 30 hours.

NOTES

- \* Actuates the standby gas treatment system.
- \*\* When handling irradiated fuel in the secondary containment.
- a. See Specification 3.6.3, Table 3.6.3-1 for valves in each valve group.
- b. 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 other OPERABLE channel in the same trip system is monitoring that parameter.
- c. With a design providing only one channel per trip system, an inoperable channel need not be placed in the tripped condition where this would cause the Trip Function to occur. In these cases, the inoperable channel shall be restored to OPERABLE status within 2 hours or the ACTION required by Table 3.3.2-1 for that Trip Function shall be taken.
- d. Trips the mechanical vacuum pumps.
- e. A channel is OPERABLE if 2 of 4 instruments in that channel are OPERABLE.
- f. May be bypassed with all turbine stop valves closed.
- g. Closes only RWCU outlet isolation valve 2G31-F004.
- h. Alarm only.
- i. Adjustable up to 60 minutes.
- j. Isolates containment purge and vent valves.
- k. Within 24 hours prior to the planned start of the hydrogen injection test with the reactor power at greater than 20% rated power, the normal full-power radiation background level and associated trip setpoints may be changed based on a calculated value of the radiation level expected during the test. The background radiation level and associated trip setpoints may be adjusted during the test based on either calculations or measurements of actual radiation levels resulting from hydrogen injection. The background radiation level shall be determined and associated trip setpoints shall be set within 24 hours of re-establishing normal radiation levels after completion of hydrogen injection and prior to establishing reactor power levels below 20% rated power.



TABLE 3.3.2-2  
ISOLATION ACTUATION INSTRUMENTATION SETPOINTS

<u>TRIP FUNCTION</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUE</u>
<u>1. PRIMARY CONTAINMENT ISOLATION</u>		
a. Reactor Vessel Water Level		
1. Low (Level 3)	≥ 10 inches*	≥ 10 inches*
2. Low Low (Level 2)	≥ -47 inches*	≥ -47 inches*
3. Low Low Low (Level 1)	≥ -113 inches*	≥ -113 inches*
b. Drywell Pressure - High	≤ 1.92 psig	≤ 1.92 psig
c. Main Steam Line		
1. Radiation - High	≤ 3 x full-power background**	≤ 3 x full-power background**
2. Pressure - Low	≥ 825 psig	≥ 825 psig
3. Flow - High	≤ 138% rated flow	≤ 138% rated flow
d. Main Steam Line Tunnel Temperature - High	≤ 194°F	≤ 194°F
e. Condenser Vacuum - Low	≥ 7" Hg vacuum	≥ 7" Hg vacuum
f. Turbine Building Area Temp. - High	≤ 200°F	≤ 200°F
g. Drywell Radiation - High	≤ 138 R/hr	≤ 138 R/hr
<u>2. SECONDARY CONTAINMENT ISOLATION</u>		
a. Reactor Building Exhaust Radiation - High	≤ 60 mr/hr	≤ 60 mr/hr
b. Drywell Pressure - High	≤ 1.92 psig	≤ 1.92 psig
c. Reactor Vessel Water Level - Low Low (Level 2)	≥ -47 inches*	≥ -47 inches*
d. Refueling Floor Exhaust Radiation - High	≤ 20 mr/hr	≤ 20 mr/hr

\*See Bases Figure B 3/4 3-1.

\*\*Within 24 hours prior to the planned start of the hydrogen injection test with the reactor power at greater than 20% rated power, the normal full power radiation background level and associated trip setpoints may be changed based on a calculated value of the radiation level expected during the test. The background radiation level and associated trip setpoints may be adjusted during the test based on either calculations or measurements of actual radiation levels resulting from hydrogen injection. The background radiation level shall be determined and associated trip setpoints shall be set within 24 hours of re-establishing normal radiation levels after completion of hydrogen injection and prior to establishing reactor power levels below 20% rated power.

TABLE 3.3.6.7-1 (SHEET 1 OF 2)  
 MCRECS ACTUATION INSTRUMENTATION

	TRIP FUNCTION	MINIMUM NUMBER OPERABLE CHANNELS PER TRIP SYSTEM(a)(b)	APPLICABLE OPERATIONAL CONDITION	ACTION
1.	Reactor Vessel Water Level - Low Low Low (Level 1) (c) 2B21-N691 A, B, C, D	2	1, 2, 3	52
2.	Drywell Pressure - High (c) 2E11-N694 A, B, C, D	2	1, 2, 3	52
3.	Main Steam Line Radiation - High (c) 2D11-K603 A, B, C, D	2	1, 2, 3, (*)	53
4.	Main Steam Line Flow - High (c) 2B21-N686 A, B, C, D 2B21-N687 A, B, C, D 2B21-N688 A, B, C, D 2B21-N689 A, B, C, D	2/line	1, 2, 3	53
5.	Refueling Floor Area Radiation - High (c) 2D21-K002 A, D	1	1, 2, 3, 5, *	54
6.	Control Room Air Inlet Radiation - High (C) 1Z41-R615 A, B	1	1, 2, 3, 5, *	54
7.	Control Room Air Inlet Chlorine Level - High (d) 1Z41-N022 A, B	1	1, 2, 3, 4, 5	55

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MCRECS ACTUATION INSTRUMENTATIONACTION

- ACTION 52 - Take the ACTION required by Specification 3.3.3.
- ACTION 53 - Take the ACTION required by Specification 3.3.2.
- ACTION 54 -
- With one of the required radiation monitors inoperable, restore the monitor to OPERABLE status within 7 days or, within the next 6 hours, initiate and maintain operation of the MCRECS in the pressurization mode of operation.
  - With no radiation monitors OPERABLE, within 1 hour initiate and maintain operation of the MCRECS in the pressurization mode of operation.
  - The provisions of Specification 3.0.4 are not applicable.
- ACTION 55 -
- With one of the required chlorine detectors inoperable, restore the inoperable detector to OPERABLE status within 7 days or, within the next 6 hours, initiate and maintain operation of the MCRECS in the isolation mode of operation.
  - With no chlorine detectors OPERABLE, within 1 hour initiate and maintain operation of the MCRECSs in the isolation mode of operation.
  - The provisions of Specification 3.0.4 are not applicable.

NOTES

- \* When handling irradiated fuel in secondary containment.
- 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 other OPERABLE channel in the same trip system is monitoring that parameter.
- b. With a design providing only one channel per trip system, an inoperable channel need not be placed in the tripped condition where this would cause the Trip Function to occur. In these cases, the inoperable channel shall be restored to OPERABLE status within 2 hours or the ACTION required by Table 3.3.6.7-1 for that Trip Function shall be taken.
- c. Actuates the MCRECS in the control room pressurization mode.
- d. Actuates the MCRECS in the control room isolation mode.
- e. Within 24 hours prior to the planned start of the hydrogen injection test with the reactor power at greater than 20% rated power, the normal full power radiation background level and associated trip setpoints may be changed based on a calculated value of the radiation level expected during the test. The background radiation level and associated trip setpoints may be adjusted during the test based on either calculations or measurements of actual radiation levels resulting from hydrogen injection. The background radiation level shall be determined and associated trip setpoints shall be set within 24 hours of re-establishing normal radiation levels after completion of hydrogen injection and prior to establishing reactor power levels below 20% rated power.

TABLE 3.3.6.7-2

MCRECS ACTUATION INSTRUMENTATION SETPOINTS

	<u>TRIP FUNCTION</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUE</u>
1.	Reactor Vessel Water Level - Low Low Low (Level 1)	≥ -113 inches	≥ - 113 inches
2.	Drywell Pressure - High	≤ 1.92 psig	≤ 1.92 psig
3.	Main Steam Line Radiation - High	≤ 3 x full-power background*	≤ 3 x full-power background*
4.	Main Steam Line Flow - High	≤ 138% rated flow	≤ 138% rated flow
5.	Refueling Floor Area Radiation - High	≤ 20 mr/hour	≤ 20 mr/hour
6.	Control Room Air Inlet Radiation - High	≤ 1 mr/hour	≤ 1 mr/hour
7.	Control Room Air Inlet Chlorine Level - High	≤ 5 ppm chlorine	≤ 5 ppm chlorine

\*Within 24 hours prior to the planned start of the hydrogen injection test with the reactor power at greater 20% rated power, the normal full power radiation background level and associated trip setpoints may be changed based on a calculated value of the radiation level expected during the test. The background radiation level and associated trip setpoints may be adjusted during the test based on either calculations or measurements of actual radiation levels resulting from hydrogen injection. The background radiation level shall be determined and associated trip setpoints shall be set within 24 hours of re-establishing normal radiation levels after completion of hydrogen injection and prior to establishing reactor power levels below 20% rated power.