

December 29, 1986

Docket No. 50-366

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

Dear Mr. Beckham:

DISTRIBUTION

Docket File	EJordan	NThompson
NRC PDR	BGrimes	
L PDR	WJones	
DVassallo	LFMB	
RBernero	SECY	
OGC-Beth	JPartlow	
OPA	SNorris	
LHarmon	GRivenbark	
ACRS (10)	Plant File	
TBarnhart (4)	EButcher	

The Commission has issued the enclosed Amendment No. 71 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 November 10, 1986.

The amendment modifies the Technical Specification sections related to operability requirements for the Main Control Room Environmental Control System (MCRECS) to (1) delete the requirement for automatic actuation of the control room pressurization mode of operation of the MCRECS upon receipt of a low-low reactor vessel water level signal, (2) change the requirement for automatic actuation of the control room pressurization mode of the MCRECS upon receipt of a high radiation signal in the refueling floor exhaust to require automatic actuation based on a high radiation signal in the refueling floor area, (3) change the location and format of the requirements related to the operability of the MCRECS to clarify and facilitate their use, (4) correct errors in the identification numbers listed for instrumentation that provides actuation signals for operation of the MCRECS, and (5) augment the MCRECS applicability requirements (Operational Conditions for which the MCRECS is required to be operable) to include additional Operational Conditions.

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

8701090229 861229
PDR ADCK 05000366
P PDR

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

Enclosures:

1. Amendment No. 71 to NPF-5
2. Safety Evaluation

cc w/enclosures:
See next page

See Previous Concurrence
*DBL:PD#2 DBL: [initials] BWRS
SNorris GRivenbark LHuMan
12/3/86 12/4/86 12/24/86
8

~~BWRS~~
~~WMeyers~~
~~1/1/86~~

~~BWFOB~~
~~DVassallo~~
~~1/1/86~~

OGC-Bethesda
with changes noted in use
12/10/86

DBL:PD#2
DButler
12/31/86

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

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

cc:

Bruce W. Churchill, Esquire
Shaw, Pittman, Potts & Trowbridge
2300 N Street, N.W.
Washington, D.C. 20037

Mr. L. T. Gucwa
Engineering Department
Georgia Power Company
Post Office Box 4545
Atlanta, Georgia 30302

Mr. H. C. Nix, Jr., General Manager
Edwin I. Hatch Nuclear Plant
Georgia Power Company
Post Office Box 442
Baxley, Georgia 31513

Mr. Louis B. Long
Southern Company Services, Inc.
Post Office Box 2625
Birmingham, Alabama 35202

Resident Inspector
U.S. Nuclear Regulatory Commission
Route 1, Post Office Box 279
Baxley, Georgia 31513

Regional Administrator, Region II
U.S. Nuclear Regulatory Commission,
101 Marietta Street, Suite 2900
Atlanta, Georgia 30303

Mr. Charles H. Badger
Office of Planning and Budget
Room 610
270 Washington Street, S.W.
Atlanta, Georgia 30334

Mr. J. Leonard Ledbetter, Commissioner
Department of Natural Resources
270 Washington Street, N.W.
Atlanta, Georgia 30334

Chairman
Appling County Commissioners
County Courthouse
Baxley, Georgia 31513



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. 71
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 November 10, 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:

8701080241 861229
PDR ADOCK 05000366
P PDR

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 71, 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

A handwritten signature in cursive script, appearing to read "Daniel R. Muller".

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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: December 29, 1986

ATTACHMENT TO LICENSE AMENDMENT NO. 71

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 areas are identified by Amendment number and contain vertical lines indicating the area of change. The overleaf pages are provided for convenience.

Remove

V

3/4 3-11

3/4 3-12

3/4 3-15

3/4 3-58

--

--

--

--

--

3/4 7-6

3/4 7-8

Insert

V

3/4 3-11

3/4 3-12

3/4 3-15

3/4 3-58

3/4 3-58a

3/4 3-58b

3/4 3-58c

3/4 3-58d

3/4 3-58e

3/4 7-6

3/4 7-8

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

<u>SECTION</u>	<u>PAGE</u>
<u>3/4.3 INSTRUMENTATION</u>	
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
Main Control Room Environmental Control System (MCRECS) Actuation Instrumentation	3/4 3-58
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
<u>3/4.4 REACTOR COOLANT SYSTEM</u>	
3/4.4.1 RECIRCULATION SYSTEM	
Recirculation Loops	3/4 4-1
Jet Pumps	3/4 4-2
Idle Recirculation Loop Startup	3/4 4-3

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

<u>SECTION</u>	<u>PAGE</u>
<u>REACTOR COOLANT SYSTEM (Continued)</u>	
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
<u>3/4.5 EMERGENCY CORE COOLING SYSTEMS</u>	
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

TABLE 3.3.2-1
ISOLATION ACTUATION INSTRUMENTATION

<u>TRIP FUNCTION</u>	<u>VALVE GROUPS OPERATED BY SIGNAL(a)</u>	<u>MINIMUM NUMBER OPERABLE CHANNELS PER TRIP SYSTEM(b)(c)</u>	<u>APPLICABLE OPERATIONAL CONDITION</u>	<u>ACTION</u>
1. PRIMARY CONTAINMENT ISOLATION				
a. Reactor Vessel Water Level				
1. Low (Level 3) (2B21-N680 A, B, C, D)	2, 6, 10, 11, 12 5, *	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	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(*)	1, 2, 3	21
e. Condenser Vacuum - Low (2B21-N056 A, B, C, D)	1	2	1, 2, (*), 3(*)	23
f. Turbine Building Area Temperature - High (2U61-R001, 2U61-R002, 2U61-R003, 2U61-R004)	1	2(*)	1, 2, 3	21

TABLE 3.3.2-1 (Continued)
ISOLATION ACTUATION INSTRUMENTATION

<u>TRIP FUNCTION</u>	<u>VALVE GROUPS OPERATED BY SIGNAL(a)</u>	<u>MINIMUM NUMBER OPERABLE CHANNELS PER TRIP SYSTEM(b)(c)</u>	<u>APPLICABLE OPERATIONAL CONDITION</u>	<u>ACTION</u>
2. SECONDARY CONTAINMENT ISOLATION				
a. Reactor Building Exhaust Radiation - High (2D11-K609 A, B, C, D)	6, 10, 12, *	2	1,2,3,5 and**	24
b. Drywell Pressure - High (2C71-N650 A, B, C, D)	2, 6, 7, 10, 12, *	2	1, 2, 3	24
c. Reactor Vessel Water Level - Low Low (Level 2) (2B21-N682 A, B, C, D)	5, *	2	1, 2, 3	24
d. Refueling Floor Exhaust Radiation - High (2D11-K611 A, B, C, D)	6, 10, 12, *	2	1,2,3,5 and**	24
3. REACTOR WATER CLEANUP SYSTEM ISOLATION				
a. Δ Flow - High (2G31-N603 A, B)	5	1	1, 2, 3	25
b. Area Temperature - High (2G31-N662 A, D, E, H, J, M)	5	1	1, 2, 3	25
c. Area Ventilation Δ Temp. - High (2G31-N663 A, D, E, H, J, M; 2G31-N661 A, D, E, H, J, M; 2G31-N662 A, D, E, H, J, M)	5	1	1, 2, 3	25
d. SLCS Initiation (NA)	5(*)	NA	1, 2, 3	25
e. Reactor Vessel Water Level - Low Low (Level 2) (2B21-N682 A, B, C, D)	5, *	2	1, 2, 3	25

TABLE 3.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

ACTION

- 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 valves 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.

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 2631-F004.
- h. Alarm only.
- i. Adjustable up to 60 minutes.

INSTRUMENTATION

TRAVERSING INCORE PROBE SYSTEM

LIMITING CONDITION FOR OPERATION

3.3.6.6. The traversing incore probe system shall be OPERABLE with:

- a. Four movable detectors, drives and readout equipment to map the core, and
- b. Indexing equipment to allow all four detectors to be normalized in a common location.

APPLICABILITY:

When the traversing incore probe is used for:

- a. Recalibration of the LPRM detectors,
- b. Monitoring the APLHGR, LHGR, or MCPR, and
- c. Adjustment of the APRM setpoints.

ACTION:

With the traversing incore probe system inoperable preventing normalization of the TIP detectors, do not use the system for the above applicable monitoring or calibration functions for more than 31 EFPD following the last normalization. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.6.6 The traversing incore probe system shall be demonstrated OPERABLE by normalizing each of the above required detector outputs prior to or during use when required for the above applicable monitoring or calibration functions, if not performed within the previous 31 EFPD.

INSTRUMENTATION

MAIN CONTROL ROOM ENVIRONMENTAL CONTROL SYSTEM (MCRECS) ACTUATION INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.6.7 The MCRECS actuation instrumentation channels shown in Table 3.3.6.7-1 shall be OPERABLE, with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3.6.7-2.

APPLICABILITY: As shown in Table 3.3.6.7-1.

ACTION: As shown in Table 3.3.6.7-1.

SURVEILLANCE REQUIREMENTS

4.3.6.7 Each MCRECS actuation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST, and CHANNEL CALIBRATION operations during the OPERATIONAL CONDITION and at the frequencies shown in Table 4.3.6.7-1.

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

<u>TRIP FUNCTION</u>	<u>MINIMUM NUMBER OPERABLE CHANNELS PER TRIP SYSTEM(a)(b)</u>	<u>APPLICABLE OPERATIONAL CONDITION</u>	<u>ACTION</u>
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 (d) 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

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

ACTION

ACTION 52 - Take the ACTION required by Specification 3.3.3.

ACTION 53 - Take the ACTION required by Specification 3.3.2.

ACTION 54 -

- a. 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.
- b. With no radiation monitors OPERABLE, within 1 hour initiate and maintain operation of the MCRECS in the pressurization mode of operation.
- c. The provisions of Specification 3.0.4 are not applicable.

ACTION 55 - -

- a. 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.
- b. With no chlorine detectors OPERABLE, within 1 hour initiate and maintain operation of the MCRECSs in the isolation mode of operation.
- c. 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.

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	$\leq 3 \times$ full-power background	$\leq 3 \times$ full-power background
4. Main Steam Line Flow - High	$\leq 138\%$ rated flow	$\leq 138\%$ 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

TABLE 4.3.6.7-1

MCRECS ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>TRIP FUNCTION</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u>	<u>OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED</u>
1. Reactor Vessel Water Level - Low Low Low (Level 1)	S	M	R	1, 2, 3
2. Drywell Pressure - High	S	M	R	1, 2, 3
3. Main Steam Line Radiation - High	D	W ^(a)	R	1, 2, 3
4. Main Steam Line Flow - High	S	M	R	1, 2, 3
5. Refueling Floor Area Radiation - High	D	M ^(a)	Q	1, 2, 3, 5 *
6. Control Room Air Inlet Radiation - High	NA	M ^(a)	R	1, 2, 3, 5, *
7. Control Room Air Inlet Chlorine - High	NA	M	R	1, 2, 3, 4, 5

* When handling irradiated fuel in the secondary containment.

a. Instrument alignment using a standard current source.

TABLE 4.3.6.7-1

MCRECS ACTUATION INSTRUMENTATION SURVEILLANCES REQUIREMENTS

<u>TRIP FUNCTION</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u>	<u>OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED</u>
1. Reactor Vessel Water Level Low Low Low	S	M	R	1, 2, 3
2. Drywell Pressure-High	S	M	R	1, 2, 3
3. Main Steam Line Radiation-High	D	W(a)	R	1, 2, 3
4. Main Steam Line Flow-High	S	M	R	1, 2, 3
5. Refueling Floor Area Radiation-High	D	M(a)	Q	1, 2, 3, 5, *
6. Control Room Air Inlet Radiation-High	NA	M(a)	R	1, 2, 3, 5, *
7. Control Room Air Inlet Chlorine Level-High	NA	M	R	1, 2, 3, 4, 5

*When handling irradiated fuel in the secondary containment
a. Instrument alignment using a standard calibration source.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- e. At least once per 18 months during shutdown, by verifying that:
 - 1. Each automatic valve servicing non-safety related equipment actuates to its isolation position on an isolation test signal.
 - 2. Each plant service water pump starts automatically, when on Standby, to maintain service water pressure \geq 60 psig.
 - 3. The standby service water subsystem pump starts automatically when the 1B diesel generator starts.

PLANT SYSTEMS

3/4.7.2 MAIN CONTROL ROOM ENVIRONMENTAL CONTROL SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.2 Two independent main control room environmental control (MCREC) systems shall be OPERABLE.

APPLICABILITY: CONDITIONS 1, 2, 3, 4*, 5, and **.

ACTION:

- a. With one main control room environmental control system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. With both main control room environmental control systems inoperable, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.

SURVEILLANCE REQUIREMENTS

4.7.2 Each main control room environmental control system shall be demonstrated OPERABLE:

- a. At least once per 12 hours by verifying that the control room air temperature is $\leq 105^{\circ}\text{F}$.
- b. At least once per 31 days, by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 15 minutes.
- c. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the system by:
 1. Performing a visual inspection of the system and all associated components before each leak test in accordance with Section 5 of ANSI N510-1975.

* Isolation mode only required to be OPERABLE.

**When handling irradiated fuel in secondary containment.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

2. Verifying that the cleanup system satisfies the in-place testing acceptance criteria and uses the test procedures of Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 1, July 1976, and the system flow rate is 2500 cfm \pm 10%.
 3. Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 1, July 1976, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 1, July 1976.
 4. Verifying a system flow rate of 2500 cfm \pm 10% during system operation when tested in accordance with ANSI N510-1975.
- d. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 1, July 1976, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 1, July 1976.
- e. At least once per 18 months by:
1. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is < 6 inches Water Gauge while operating the system at a flow rate of 2500 cfm \pm 10%.
 2. Verifying that on an isolation mode actuation test signal from the chlorine detectors, the system automatically switches to the isolation mode of operation with recirculation flow through HEPA filters and charcoal adsorber banks and that the isolation dampers close in ≤ 7 seconds.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

3. Verifying that on each of the below pressurization mode actuation test signals, the system automatically switches to the pressurization mode of operation and maintains the main control room at a positive pressure of ≥ 0.1 inch W.G. relative to the adjacent Turbine Building during system operation at a flow rate ≤ 400 cfm.
 - a) Reactor vessel water level - low low low
 - b) Drywell pressure - high
 - c) Refueling floor area radiation - high
 - d) Main steam line radiation - high
 - e) Main steam line flow - high
 - f) Control room intake monitors radiation - high
4. Verifying that on a high chlorine concentration actuation test signal, the system automatically switches to the isolation mode of operation.
- f. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter banks remove $\geq 99\%$ of the DOP when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of 2500 cfm $\pm 10\%$.
- g. After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorbers remove $\geq 99\%$ of a halogenated hydrocarbon refrigerant test gas when they are tested in-place in accordance with ANSI N510-1975 while operating the system at a flow rate of 2500 cfm $\pm 10\%$.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 71 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 November 10, 1986, Georgia Power Company requested that the Hatch Unit 2 Technical Specification Sections related to operability requirements for the Main Control Room Environmental Control System (MCRECS) be modified to (1) delete the requirement for automatic actuation of the control room pressurization mode of operation of the MCRECS upon receipt of a low-low reactor vessel water level signal, (2) change the requirement for automatic actuation of the control room pressurization mode of the MCRECS upon receipt of a high radiation signal in the refueling floor exhaust to require automatic actuation based on a high radiation signal in the refueling floor area (i.e., the word "exhaust" would be replaced by the word "area", (3) change the location and format of the requirements related to the operability of the MCRECS to clarify and facilitate their use, (4) correct errors in the identification numbers listed for instrumentation that provides actuation signals for operation of the MCRECS, and (5) augment the MCRECS applicability requirements (Operational Conditions for which the MCRECS is required to be operable) to include additional Operational Conditions.

Proposed changes (1) and (2) above are needed to make the Technical Specifications compatible with the existing plant design and the design as described and evaluated in the Hatch Unit 2 Final Safety Analysis Report.

2.0 EVALUATION

With respect to change (1), the existing Technical Specification requires that the control room pressurization mode of MCRECS operation be automatically actuated upon receipt of a low-low (Level 2) reactor vessel water level signal and also upon receipt of a low-low-low (Level 3) reactor vessel water level signal. In addition, the existing Technical Specification also requires actuation of the control room pressurization mode based on high drywell pressure. Thus, even with deletion of the low-low reactor vessel water level signal, the remaining low-low-low reactor vessel water level actuation requirement together with this high drywell pressure actuation requirement continue to provide diverse LOCA signal actuation of the control room pressurization mode, and the

elimination of the redundant reactor vessel water level actuation requirement does not significantly change the safety margin provided by the current Technical Specification requirements. It is also noted that the Standard Review Plan and the Standard Technical Specifications do not specify a requirement for actuation of the control room pressurization mode based on low reactor vessel water level. On the basis of the above discussion, we conclude that deletion of the requirement for automatic actuation of the control room pressurization mode based on a low-low reactor vessel water level is acceptable.

With respect to change (2), the area radiation monitors that will actuate the control room pressurization mode of MCRECS operation are area radiation monitors 2D11-K002A and D and are located in the refueling floor area close to the exhaust ducts rather than inside the ducts as currently required. They are located approximately five feet above the refueling floor and directly below the vent duct on the wall. These locations assure that air flow in the refueling area will be monitored before entering the vent ducts. In addition, the design basis fuel handling accident described in Hatch Unit 2 FSAR Section 15.1.4.1 indicates that the resultant radiological doses are sufficiently high to trip off the set points of these area radiation monitors and provide signals to isolate the MCRECS.

The refueling area exhaust radiation monitor which actuates secondary containment isolation in the event of release of activity in the refueling area, in effect, acts as a backup to the area radiation monitors. It signals the control room that it has actuated on high radiation levels. The control room operators would then be able to manually actuate the control room pressurization mode of MCRECS operation before this release becomes a problem for control room.

On the basis of the above discussion, we conclude that the change to require automatic actuation of the control room pressurization mode based on signals from the refueling floor area radiation monitors rather than on refueling area exhaust monitors is acceptable.

Changes (3) and (4) do not modify any current Technical Specification requirements. They change the location and format of information and correct instrument numbers related to MCRECS requirements. We conclude that these changes improve the Technical Specifications, and are acceptable.

The current Technical Specifications do not explicitly require that actuation of the MCRECS control room isolation mode of operation be demonstrated. However, operability of the isolation mode is needed in all Operational Conditions because a chlorine release accident can be postulated to occur independent of the reactor Operational Condition.

The current Technical Specifications do not require that the MCRECS control room pressurization mode of operation be operable during Operating Condition 5 (Refueling) or other fuel handling operations. However, operability of the control room pressurization mode is needed whenever irradiated fuel is being handled because a fuel handling accident that might require actuation of the control room pressurization mode can be postulated to occur in these situations.

Change (5) adds requirements a) that the control room isolation mode of MCRECS operation shall be operable when the reactor is in Operational Conditions 4 and 5 (Cold-Shutdown and Refueling) and b) that the control room pressurization mode of MCRECS be operable when the reactor is in Operational Condition 5 and when irradiated fuel is being handled in the secondary containment. We conclude that these additions should increase the safety of operation in these situations and 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. 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 is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

4.0 CONCLUSION

We have concluded, based on the considerations discussed above, 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, and the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: G. Rivenbark, A. Chu, M. Lamastra

Dated: December 29, 1986