March 20, 1992

Docket Nos. 50-321
and 50-366

Mr. W. G. Hairston, III
Senior Vice President -
Nuclear Operations
Georgia Power Company
P. O. Box 1295
Birmingham, Alabama 35201

Dear Mr. Hairston:

SUBJECT: ISSUANCE OF AMENDMENT NO. 178 TO FACILITY OPERATING LICENSE DPR-57 AND AMENDMENT NO. 119 TO FACILITY OPERATING LICENSE NPF-5 - EDWIN I. HATCH NUCLEAR PLANT, UNITS 1 AND 2 (TACS M75816 AND M75817)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 178 to Facility Operating License No. DPR-57 and Amendment No. 119 to Facility Operating License No. NPF-5 for the Edwin I. Hatch Nuclear Plant, Units 1 and 2. The amendments consist of changes to the Technical Specifications (TSs) in response to your application dated January 10, 1990, as supplemented January 21 and December 16, 1991 and March 5, 1992.

The amendments eliminate discrepancies between the plants' TSs and Regulatory Guide 1.108, "Periodic Testing of Diesel Generator Units Used As Onsite Electric Power Systems at Nuclear Power Plants," and to conform to the requirements contained in Generic Letter 84-15, "Proposed Staff Actions to Improve and Maintain Diesel Generator Reliability," dated July 2, 1984.

A copy of the related Safety Evaluation is also enclosed. A Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,
ORIGINAL SIGNED BY:

Kahtan N. Jabbour, Project Manager
Project Directorate II-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 178 to DPR-57
2. Amendment No. 119 to NPF-5
3. Safety Evaluation

cc w/enclosures:
See next page

*SEE PREVIOUS CONCURRENCE

OFC	PDII-3/LA	PDII-3/PM	BC:SPLB*	OGC*	PDII-3/D
NAME	LBerry	KJabbour:cw	FRosa	CBarth	DMatthews
DATE	3/17/92	3/17/92	01/28/92	02/03/92	3/19/92

Document Name: HATCH SER M75816/7

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

March 20, 1992

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and 50-366

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Kahtan N. Jabbour

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Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 178 to DPR-57
2. Amendment No. 119 to NPF-5
3. Safety Evaluation

cc w/enclosures:
See next page

Mr. W. G. Hairston, III
Georgia Power Company

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DATED: MARCH 20, 1992

AMENDMENT NO. 178 TO FACILITY OPERATING LICENSE DPR-57 - Hatch Nuclear Plant, Unit 1
AMENDMENT NO. 119 TO FACILITY OPERATING LICENSE NPF-5 - Hatch Nuclear Plant, Unit 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. 50-321

EDWIN I. HATCH NUCLEAR PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 178
License No. DPR-57

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment to the Edwin I. Hatch Nuclear Plant, Unit 1 (the facility) Facility Operating License No. DPR-57 filed by Georgia Power Company, acting for itself, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and City of Dalton, Georgia (the licensees) dated January 10, 1990, as supplemented January 21 and December 16, 1991, and March 5, 1992, 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 license 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 hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. DPR-57 is hereby amended to read as follows:

   Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 178, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective on the date issuance and shall be implemented within 120 days.

FOR THE NUCLEAR REGULATORY COMMISSION

David B. Matthews, Director
Project Directorate II-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: March 20, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 178

FACILITY OPERATING LICENSE NO. DPR-57

DOCKET NO. 50-321

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 areas of change.

Remove Pages	Insert Pages
3.9-1	3.9-1
3.9-2	3.9-2
3.9-2a	3.9-2a
3.9-2b	3.9-2b
3.9-2c	3.9-2c
-	3.9-2d
3.9-4	3.9-4
3.9-4a	3.9-4a
-	3.9-4b
3.9-7	3.9-7
3.9-8	3.9-8

3.9. AUXILIARY ELECTRICAL SYSTEMS

Applicability

The Limiting Conditions for Operation apply to the auxiliary electrical power systems.

Objective

The objective of the Limiting Conditions for Operation is to assure an adequate supply of electrical power for operation of those systems required for safety.

Specifications

A. Requirements For Reactor Startup

The reactor shall not be made critical from the Cold Shutdown Condition unless all of the following conditions are satisfied:

1. Offsite Power Sources

At least two 230-kV offsite transmission lines shall be available and each shall be capable of supplying auxiliary power to the emergency 4160 volt buses (1E, 1F, and 1G) and each shall be capable of supplying power to both startup auxiliary transformers (1C and 1D).

2. Standby AC Power Supply (Diesel Generators 1A, 1B, and 1C)

Three diesel generators (1A, 1B and 1C) shall be operable and capable of supplying power to the emergency 4160-volt buses (1E, 1F, and 1G).

For each diesel generator to be operable and capable of supplying power, the following conditions must be met:

4.9. AUXILIARY ELECTRICAL SYSTEMS

Applicability

The Surveillance Requirements apply to the periodic testing requirements of the auxiliary electrical power systems.

Objective

The objective of the Surveillance Requirements is to verify the operability of the auxiliary electrical systems.

Specifications

A. Auxiliary Electrical Systems Equipment

Tests shall be performed at scheduled intervals as follows to detect deterioration of equipment and to demonstrate that auxiliary electrical systems equipment and components are operable.

1. Offsite Power Sources

a. Verify correct breaker alignments and indicated power availability at least once per 7 days.

b. Demonstrate manual and automatic transfer of unit power supply from the normal circuit to alternate circuit for each of the required circuits from offsite at least once per 18 months.

2. Standby AC Power Supply (Diesel Generators 1A, 1B, and 1C)

The following periodic tests and surveillance of the standby AC power supply (Diesel Generators 1A, 1B, and 1C) shall be performed:

3.9.A.2. Standby AC Power Supply (Diesel Generators 1A, 1B, and 1C) (Continued)

a. Operability

The diesel generator itself and its auxiliaries are operable.

4.9.A.2. Standby AC Power Supply (Diesel Generators 1A, 1B, and 1C) (Continued)

a. Operability

1. Each diesel generator shall be manually started and loaded to demonstrate operational readiness in accordance with the frequency specified in Table 4.9-1 on a Staggered Test Basis.* Verify that each diesel starts from ambient condition, gradually load the generator to 1710-2000 kW** and operate for ≥ 60 minutes. A steady-state voltage of 4160 ± 420 volts and a steady-state frequency of 60 ± 1.2 Hz will be maintained. Verify the pressure in both diesel air start receivers to be ≥ 225 psig.

2. At least once per 184 days, each diesel generator shall be started and verified to reach synchronous speed in ≤ 12 seconds, loaded to an indicated 2250-2400 kW** for 1A and 1C and 2360-2425 kW** for 1B in ≤ 120 seconds, and operated for ≥ 60 minutes. The test will verify the diesel generator will achieve and maintain a steady-state voltage of 4160 ± 420 volts and a steady-state frequency of 60 ± 1.2 Hz.*

*For the 1B (swing) diesel, a single test will satisfy the requirements for Unit 1 Specification 4.9.A.2.a.1 and Unit 2 Specification 4.8.1.1.2.a.4, with the diesel connected to one unit's emergency bus for one periodic test and connected to the emergency bus in the other unit during the next periodic test.

A single 6-month (184-day) test for the 1B diesel will satisfy the requirements for Unit 1 Specification 4.9.A.2.a.2 and Unit 2 Specification 4.8.1.1.2.b. The 6-month test will be performed using the starting circuitry and emergency bus from one unit. The next 6-month test will be performed using the starting circuitry and emergency bus from the other unit.

**Momentary variations outside this band shall not invalidate the test.

4.9.A.2. Standby AC Power Supply (Diesel Generators 1A, 1B, and 1C) (Continued)

a. Operability (Continued)

3. At least once per 18 months during shutdown, subject the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service.*

4. At least once per 18 months during shutdown, verify the diesel generator capability to reject its largest single shutdown (emergency) load, while maintaining voltage at 4160 ± 420 volts. For diesel generator 1A, this would be CS pump 1A at rated flow. For diesel generator 1B, this would be either the 1C or 2C Residual Heat Removal Service Water (RHRSW) pump at rated flow. For diesel generator 1C, this would be CS pump 1B at rated flow. During the load rejection test, the diesel generator shall not exceed the nominal speed plus 75% of the difference between nominal speed and the overspeed trip setpoint, or 15% above nominal speed, whichever is less.*

5. At least once per 18 months during shutdown, verify the diesel generator capability to reject a load of at least 2775 kW without tripping. The generator voltage shall not exceed 4800 volts during and following the load rejection.*

6. At least once per 18 months during shutdown, verify the diesel generator operates for at least 24 hours. During the first 2 hours of this test, the

*For the 1B diesel generator, a single full load rejection test every 18 months will satisfy the requirements of Unit 1 Specification 4.9.A.2.a.5 and Unit 2 Specification 4.8.1.1.2.d.4. A single partial load rejection test every 18 months will satisfy the requirements of Unit 1 Specification 4.9.A.2.a.4 and Unit 2 Specification 4.8.1.1.2.d.3. A single diesel inspection will satisfy the requirements of Unit 1 Specification 4.9.A.2.a.3 and Unit 2 Specification 4.8.1.1.2.d.1.

4.9.A.2. Standby AC Power Supply (Diesel Generators 1A, 1B, and 1C) (Continued)

a. Operability (Continued)

diesel generator shall be loaded to ≥ 3000 kW* and during the remaining 22 hours of this test, the diesel generator shall be loaded to 2775-2825 kW*.**

7. At least once per 18 months during shutdown, verify the auto-connected loads to each diesel generator. Do not exceed 3100 kW.

8. At least once per 18 months during shutdown, verify the diesel generator's capability to synchronize with the offsite power source while the generator is loaded with its emergency loads upon a simulated restoration of offsite power, to transfer its loads to the offsite power source, and to proceed through its shutdown sequence.

9. At least once per 18 months during shutdown, verify that with the diesel generator operating in the test mode (connected to its bus), a simulated LOCA actuation signal overrides the test mode by returning the diesel generator to standby operation and automatically energizes the emergency loads with offsite power.

10. At least once per 10 years, or after any modifications which could affect diesel generator interdependence, verify that all three diesel generators start simultaneously during shutdown, and accelerate to synchronous speed in ≤ 12 seconds.

*Momentary variations outside this band shall not invalidate the test.

**For the 1B diesel generator, a single 24-hour load test every 18 months will satisfy the requirements of Unit 1 Specification 4.9.A.2.a.6 and Unit 2 Specification 4.8.1.1.2.d.9.

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
3.9.A.2 Standby AC Power Supply (Diesel Generators 1A, 1B, and 1C) (Continued)	4.9.A.2. Standby AC Power Supply (Diesel Generators 1A, 1B, and 1C) (Continued)
b. Diesel Battery (125 Volt) Each 125-volt diesel battery is operable and capable of supplying the required load.	b. Diesel Battery (125 Volt) Each 125-volt diesel battery shall be subjected to the same periodic surveillance as the plant batteries in Specification 4.9.A.3.
c. Battery Charger An operable battery charger is available. Each battery charger shall have adequate capacity to restore its battery to full charge within 24 hours from a discharged condition while carrying the DC load.	c. Battery Charger Indicators shall be provided to monitor the status of the battery charger supply. This instrumentation shall include indication of output current and output voltage.
d. Diesel Fuel There shall be a minimum of 99,000 gallons of acceptable diesel fuel in the diesel fuel storage tanks and a minimum of 900 gallons in each diesel fuel day tank.	d. Diesel Fuel 1. The quantity of diesel fuel available in each fuel storage tank and fuel day tank shall be measured and recorded concurrently with the operability test specified for the diesel in Specification 4.9.A.2.a.1. 2. At least once per 92 days by verifying that a sample of diesel fuel from the fuel storage tank, obtained in accordance with ASTM-D270-65, is within the acceptable limits specified in Table 1 of ASTM D975-74 when checked for viscosity, water and sediment.
e. Fuel Oil Transfer Pumps A fuel oil transfer pump shall be operable and capable of transferring fuel oil from the storage system to the day tank.	e. Fuel Oil Transfer Pumps 1. The operation of the diesel fuel oil transfer pumps to transfer fuel from the storage system to the day tank shall be demonstrated concurrent with the operability test specified for that diesel in Specification 4.9.A.2.a.1. 2. The operation of the diesel fuel oil transfer pumps to transfer fuel from each associated fuel storage tank to the day tank of each diesel, via the installed cross connection lines, shall be demonstrated at least once per 18 months during shutdown.

(This page intentionally blank.)

4.9.A.6. Emergency 250 Volt DC to 600 Volt AC Inverters (Continued)

b. Once every scheduled refueling outage, the emergency 250-volt DC/600-volt AC inverters shall be subjected to a load test to demonstrate operational readiness.

3.9.A.7. Logic Systems

The following logic systems shall be operable:

a. The common accident signal logic system is operable.

b. The undervoltage relays and supporting system are operable.

4.9.A.7. Logic Systems

The logic systems shall be tested in the manner and frequency as follows:

a. Each division of the common accident signal logic system shall be tested every scheduled refueling outage to demonstrate that it will function on actuation of the ECCS to provide an automatic start signal to all 3 diesel generators. Each diesel generator shall operate on standby ≥ 5 minutes.

b.1. Once every 18 months during shutdown, the conditions under which the undervoltage logic system is required shall be simulated with an undervoltage on each start bus to demonstrate that the emergency busses are deenergized, and that the diesel generators will start, energize the emergency busses with permanently connected loads in ≤ 12 seconds, energize the auto-connected shutdown loads through the load sequencer, operate for ≥ 5 minutes while the diesel generators are loaded with the shutdown loads, and achieve and maintain a steady-state voltage of 4160 ± 420 volts and a steady-state frequency of 60 ± 1.2 Hz. The testing of the undervoltage logic shall also demonstrate the operability of the 4160-volt load shedding and auto bus transfer circuits, and that the subsequent loading is in accordance with design requirements (± 10% of its design interval). The simulations shall test both the degraded voltage and the loss of offsite power relays.

3.9.A.7. Logic Systems (Continued)

4.9.A.7. Logic Systems (Continued)

2. Within 5 minutes after completing the 24-hour load test specified in Surveillance Requirement 4.9.A.2.a.6, repeat Surveillance Requirement 4.9.A.7.b.1 with a simulated loss of offsite power start signal and run the diesel for at least 5 minutes while loaded with shutdown loads.* This test is to be performed every 18 months.

3. Once per month, the relays which initiate energization of the emergency buses by the Diesel Generators when voltage is lost on the emergency buses and startup transformer 1C, will be functionally tested.

c. The common accident signal logic system, and undervoltage relays and supporting system are operable.

c.1. Once every 18 months during shutdown, each diesel generator shall be demonstrated operable by simulating a loss of offsite power in conjunction with an accident test signal and verifying: de-energization of the emergency buses and load shedding from the emergency buses; and the diesel starts on the auto-start signal with permanently connected loads in $\leq$ 12 seconds, energizes the auto-connected shutdown (emergency) loads through the load sequencer, operates for $\geq$ 5 minutes while its generator is loaded with the emergency loads, and achieves and maintains a steady-state voltage of 4160 $\pm$ 420 volts and a steady-state frequency of 60 $\pm$ 1.2 Hz.

2. The undervoltage relays for the start buses shall be calibrated annually for trip and reset voltages and the measurements recorded.

3. Verify, once per 18 months during shutdown, that all diesel generator trips, except engine overspeed, low lube oil pressure, and generator differential, are automatically bypassed upon loss of voltage on the emergency bus concurrent with an ECCS actuation signal.

*If the diesel generator fails this test, a retest may be performed after the diesel generator has been operated for $\geq$ 2 hours at $\geq$ 2565 kW.

3.9.A.7. Logic Systems (Continued)

B. Requirements for Continued Operation with Inoperable Components

Whenever the reactor is in the Start & Hot Standby or Run Mode and the reactor water temperature is greater than 212°F, the availability of auxiliary electrical power shall be as specified in 3.9.A., except as specified herein. If the requirements of this Specification cannot be met, an orderly shutdown shall be initiated and the reactor shall be placed in the Cold Shutdown Condition within 24 hours.

4.9.A.7. Logic Systems (Continued)

B. Requirements for Continued Operation With Inoperable Components

Continued reactor operation is permissible with inoperable components in accordance with Specification 3.9.B provided that the following increased Surveillance Requirements are satisfied.

3.9. AUXILIARY ELECTRICAL SYSTEMS

The objective of these Specifications is to assure an adequate supply of electrical power to operate facilities to cool the reactor during shutdown and operate engineered safety features following an accident. There are two sources of auxiliary AC electrical energy available; namely the 230-kV transmission system through the two startup auxiliary transformers and the three diesel generators. The DC power systems supply emergency DC power required for control.

A. Requirements for Reactor Startup

In accordance with General Design Criterion 17 of Appendix A to 10 CFR 50, the onsite electric power supplies, including the batteries, and the onsite electrical distribution system shall have sufficient independence and redundancy to perform their safety functions assuming a single failure.

1. Offsite Power Sources

The network interconnection between HNP-1 and the Southern Company transmission system will consist of at least four 230-kV transmission lines which are fed from different sections of the Southern Company grid. The system shall be able to withstand the simultaneous loss of any system generator and the most critical transmission line associated with its loss. Separation is provided in routing for these transmission lines as they approach the switchyard.

The 230-kV transmission lines connect to the two startup auxiliary transformers (1C and 1D). Startup auxiliary transformer 1D normally provides startup and shutdown power. Startup auxiliary transformer 1C provides backup power to safety features in the event of the loss of transformer 1D. The startup auxiliary transformers remain energized to permit auxiliary load transfer if required. Each startup auxiliary transformer, in addition to its startup function, is sized to provide 100% of the emergency AC load to engineered safety features within a few seconds following a design basis accident.

2. Standby AC Power Supply (Diesel Generators 1A, 1B, and 1C)

The design of the diesel generator systems shall conform to the applicable section of proposed IEEE Standard No. 308. The diesel generators are selected on the basis of their proven reliability and independence as standby power supplies. There are three diesel generator units available for HNP-1 (diesel generator 1B will be shared with HNP-2) and each has a 2850-kW continuous rating. The diesel generator units shall not be operated in parallel with each other at any time nor do they have any secondary function but shall be utilized solely as a standby power supply.

a. Operability
In order to be considered operable the diesel generators shall be capable of providing electric energy for the operation of emergency systems and engineered safety features during and following the shutdown of the reactor when the preferred power supply (230-kV transmission network) is not available. This shall include the capability to: (1) start and accelerate a number of large motor loads in rapid succession, and be able to sustain

3.9.A.2.a. Operability (Continued)
the loss of any such load, and (2) supply continuously the sum of the loads needed to be powered at any one time. The diesel engines shall start automatically upon the loss of offsite power. The diesel generator for one load group shall never be automatically interconnected under accident conditions with the diesel generator of any other load group.

b. Diesel Battery (125 Volt)
Each diesel generator shall have its own 125-volt battery for operating auxiliary motors and controls required for starting. Each battery shall have adequate storage capacity to carry the required load for approximately a 2-hour period without recharging.

c. Battery Charger
Each diesel generator 125-volt battery shall have its own battery charger. One spare battery charger will be provided as a backup for the five diesel generator systems.

d. Diesel Fuel
Each of the five diesel generators is provided with a storage tank and a day tank. The 33,000 gallons required to be maintained in each of the fuel oil tanks represents a total volume of oil sufficient to operate any four diesel generators at 3250 kW for a period of 7 days. This is based on a conservative expected fuel consumption of 240 gallons per hour per engine.

The onsite fuel capacity will last longer than the time it would take to replenish the onsite supply from offsite sources (which is less than 7 days). Valving is available so that fuel oil can be transferred between fuel oil storage tanks. However, administrative controls shall be in place to limit long-term total diesel generator load to ≤ 13,000 kW, and to limit individual diesel generator loading to ≤ 3250 kW.

Each diesel generator shall be supplied fuel from its own day tank. The 1,000 gallon fuel capacity of each day tank is a sufficient supply for approximately 4 hours of full load operation.

3. 125/250 Volt DC Emergency Power System (Plant Batteries 1A and 1B)

The 125-volt DC emergency system shall provide power to a sufficient number of vital DC loads necessary for safe shutdown. Two separate plant batteries shall be furnished, each with its own battery charger. One spare battery charger will be provided as a backup. Each of the two sets of plant batteries has storage capacity to carry the required load for approximately a 2-hour period without recharging. Power from the plant batteries is required under all operating conditions. The maximum requirement on the batteries is based on a design basis accident at design power with a concurrent loss of AC power.

4. Emergency 4160 Volt Buses (1E, 1F, and 1G)

The emergency 4160-volt buses shall distribute AC power to the required engineered safety feature equipment. The normal feeds to the emergency buses (1E, 1F, and 1G) are taken from the startup auxiliary transformers. If neither startup auxiliary transformer is available, buses 1E, 1F, and 1G can be energized from the standby diesel generators.

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 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 119
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 licensees) dated January 10, 1990, as supplemented January 21 and December 16, 1991, and March 5, 1992, 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 license 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 hereby amended by page 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:

   Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 119, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective on the date issuance and shall be implemented within 120 days.

FOR THE NUCLEAR REGULATORY COMMISSION

David B. Matthews, Director
Project Directorate II-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: March 20, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 119

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 vertical lines indicating the areas of change.

Remove Pages	Insert Pages
3/4 8-1	3/4 8-1
3/4 8-2	3/4 8-2
3/4 8-3	3/4 8-3
3/4 8-3a	3/4 8-3a
3/4 8-3b	3/4 8-3b
3/4 8-4	3/4 8-4
3/4 8-5	3/4 8-5
3/4 8-9	3/4 8-9
B 3/4 8-1	B 3/4 8-1

3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 A.C. SOURCES

A.C. SOURCES - OPERATING

LIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system, and

b. Three separate and independent diesel generators, each with:

   1. A separate day tank containing a minimum of 900 gallons of fuel,

   2. A separate fuel storage tank containing a minimum of 33,000 gallons of fuel, and

   3. A separate fuel transfer pump.

APPLICABILITY: CONDITIONS 1, 2, and 3.

ACTION:

a. With one offsite circuit of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining offsite A.C. source by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter, and performing Surveillance Requirement 4.8.1.1.2.a.4 within 24 hours. Restore at least two offsite circuits to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

b. With one diesel generator of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter, and by performing Surveillance Requirement 4.8.1.1.2.a.4 within 24 hours. Restore at least three diesel generators to

ACTION (Continued)

OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

c. With one offsite circuit and one diesel generator of the above required A.C. electrical power sources inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirement 4.8.1.1.1.a within 1 hour and at least once per 8 hours thereafter, and by performing Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours. Restore at least one of the inoperable sources to OPERABLE status within 12 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. Restore the other A.C. power source (offsite circuit or diesel generator set) to OPERABLE status in accordance with the provisions of Section 3.8.1.1, Action Statements a or b, as appropriate, from the time of initial loss.

d. With two of the above required offsite A.C. circuits inoperable, demonstrate the OPERABILITY of three diesel generators by performing Surveillance Requirement 4.8.1.1.2.a.4 within 8 hours, unless the diesel generators are already operating; restore at least one of the inoperable offsite sources to OPERABLE status within 24 hours or be in at least HOT SHUTDOWN with the next 12 hours. With only one offsite source restored, restore the remaining offsite circuit to OPERABLE status within 72 hours from the time of initial loss or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

e. With two of the above required diesel generators inoperable, demonstrate the OPERABILITY of the remaining A.C. sources by performing Surveillance Requirements 4.8.1.1.1.a. and 4.8.1.1.2.a.4 within 1 hour and at least once per 8 hours thereafter. Restore at least one of the inoperable diesel generators to OPERABLE status within 2 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. Restore three diesel generators to OPERABLE status within 72 hours from the time of initial loss or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

4.8.1.1.1 Each of the above required independent circuits between the offsite transmission network and the onsite Class 1E distribution system shall be:

a. Determined OPERABLE at least once per 7 days by verifying correct breaker alignments and indicated power availability, and

b. Demonstrated OPERABLE at least once per 18 months during shutdown by transferring, manually and automatically, unit power supply from the normal circuit to the alternate circuit.

4.8.1.1.2 Each diesel generator shall be demonstrated OPERABLE:

a. In accordance with the frequency specified in Table 4.8.1.1.2-1 on a STAGGERED TEST BASIS by:

1. Verifying the fuel level in the day fuel tanks.

2. Verifying the fuel level in the plant fuel storage tank.

3. Verifying the fuel transfer pump can be started and transfers fuel from the storage system to the day tank.

4. Verifying that each diesel starts from ambient condition by gradually loading the generator to 1710-2000 kW*, and operating for $\geq$ 60 minutes, and maintains a steady-state voltage of 4160 $\pm$ 420 volts and a steady-state frequency of 60 $\pm$ 1.2 Hz.**

5. Verifying the diesel generator is aligned to provide standby power to the associated emergency busses.

*Momentary variations outside this band shall not invalidate the test.

**For the 1B (swing) diesel, a single test will satisfy the requirements for Unit 1 Specification 4.9.A.2.a.1 and Unit 2 Specification 4.8.1.1.2.a.4, with the diesel connected to one unit's emergency bus for one periodic test and connected to the emergency bus in the other unit during the next periodic test.

6. Verifying the pressure in both diesel air start receivers to be ≥ 225 psig.

b. At least once per 184 days by verifying the diesel starts from ambient condition and accelerates to synchronous speed in ≤ 12 seconds is loaded to 2764-2825 kW* for diesel generator 2A, 2360-2425 kW* for diesel generator 1B, and 2742-2825 kW* for diesel generator 2C in ≤ 120 seconds, achieves and maintains a steady-state voltage of 4160 ± 420 volts and a steady-state frequency of 60 ± 1.2 HZ, and operates for ≥ 60 minutes thereafter.**

c. At least once per 92 days by verifying that a sample of diesel fuel from the fuel storage tank, obtained in accordance with ASTM-D270-65, is within the acceptable limits specified in Table 1 of ASTM D975-74 when checked for viscosity, water and sediment.

d. At least once per 18 months during shutdown by:

1. Subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service.***

*Momentary variations outside this band shall not invalidate the test.

**A single 6-month (184-day) test for the 1B diesel will satisfy the requirements for Unit 1 Specification 4.9.A.2.a.2 and Unit 2 Specification 4.8.1.1.2.b. The 6-month test will be performed using the starting circuitry and emergency bus for one unit. The next 6-month test will be performed using the starting circuitry and emergency bus from the other unit.

***For the 1B diesel generator, a single diesel inspection every 18 months will satisfy the requirements of Unit 1 Specification 4.9.A.2.a.3 and Unit 2 Specification 4.8.1.1.2.d.1.

SURVEILLANCE REQUIREMENTS (Continued)

2. Verifying that the automatic load sequence timer is OPERABLE with the interval between each load block within ± 10% of its design interval.

3. Verifying the diesel generator capability to reject its largest single shutdown (emergency) load while maintaining voltage at 4160 ± 420 volts. For diesel generator 2A, this will be the 2A Residual Heat Removal Service Water (RHRSW) pump at rated flow; for diesel generator 1B this would be either the 1C or 2C RHRSW pump at rated flow; for diesel generator 2C this would be either the 2B or 2D RHRSW pump at rated flow. During these load rejection tests, the diesel generator shall not exceed the nominal speed plus 75% of the difference between nominal speed and the overspeed trip setpoint, or 15% above nominal speed, which ever is lower.*

*For the 1B diesel generator a single partial load rejection test every 18 months will satisfy the requirements of Unit 1 Specification 4.9.A.2.a.4 and Unit 2 Specification 4.8.1.1.2.d.3.

4. Verifying the diesel generator capability to reject a load of at least 2775 kW without tripping. The generator voltage shall not exceed 4800 volts during and following the load rejection.*

5. Simulating a loss of offsite power by itself, and:

   a) Verifying de-energization of the emergency busses and load shedding from the emergency busses.

   b) Verifying the diesel starts on the auto-start signal, energizes the emergency busses with permanently connected loads in $\leq$ 12 seconds, energizes the auto-connected shutdown loads through the load sequencer, operates for $\geq$ 5 minutes while its generator is loaded with the shutdown (emergency) loads, and achieves and maintains a steady-state voltage of 4160 $\pm$ 420 volts and a steady-state frequency of 60 $\pm$ 1.2 Hz.

6. Verifying that on an ECCS actuation test signal, without loss of offsite power, the diesel generator starts on the auto-start signal and operates on standby for $\geq$ 5 minutes.

7. (deleted)

8. Simulating a loss of offsite power in conjunction with an ECCS actuation test signal, and

   a) Verifying de-energization of the emergency busses and load shedding for the emergency busses.

   b) Verifying the diesel starts on the auto-start signal, energizes the emergency busses with permanently connected loads in $\leq$ 12 seconds, energizes the auto-connected shutdown (emergency) loads through the load sequencer, operates for $\geq$ 5 minutes while its generator is loaded with the emergency loads, and achieves and maintains a steady-state voltage of 4160 $\pm$ 420 volts and a steady-state frequency of 60 $\pm$ 1.2 Hz.

   c) Verifying that all diesel generator trips, except engine overspeed, low lube oil pressure, and generator differential are automatically bypassed upon loss of voltage on the emergency bus concurrent with an ECCS actuation signal.

* For the 1B diesel generator a single full load rejection test every 18 months will satisfy the requirements of Unit 1 Specification 4.9.A.2.a.5 and Unit 2 Specification 4.8.1.1.2.d.4.

SURVEILLANCE REQUIREMENTS (Continued)

9. Verifying that the diesel generator operates for at least 24 hours. During the first 2 hours of this test, the diesel generator shall be loaded to ≥ 3000 kW* and during the remaining 22 hours of this test, the diesel generator shall be loaded to 2775-2825 kW*.** Within 5 minutes after completing this 24-hour test, repeat Surveillance Requirement 4.8.1.1.2.d.5.b.***

10. Verifying that the auto-connected loads to each diesel generator do not exceed the 2000-hour rating of 3100 kW.

11. Verifying the diesel generator's capability to:

    a) Synchronize with the offsite power source while the generator is loaded with its emergency loads upon a simulated restoration of offsite power,

    b) Transfer its loads to the offsite power source, and

    c) Proceed through its shutdown sequence.

12. Verifying that with the diesel generator operating in a test mode (connected to its bus), a simulated LOCA actuation signal overrides the test mode by: (1) returning the diesel generator to standby operation and (2) automatically energizing the emergency loads with offsite power.

13. Verifying that the fuel transfer pump transfers fuel from each associated fuel storage tank to the day tank of each diesel via the installed cross connection lines.

e. At least once per 10 years or after any modifications which could affect diesel generator interdependence by starting both diesel generators simultaneously, during shutdown, and verifying that both diesel generators accelerate to synchronous speed in ≤ 12 seconds.

*Momentary variations outside this band shall not invalidate the test.

**For the 1B diesel generator, a single 24-hour load test every 18 months will satisfy the requirements of Unit 1 Specification 4.9.A.2.a.6 and Unit 2 Specification 4.8.1.1.2.d.9.

***If the diesel generator fails this test, a retest may be performed after the diesel generator has been operated for ≥ 2 hours at ≥ 2565 kW.

A.C. SOURCES - SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.8.1.2 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

a. One circuit between the offsite transmission network and the onsite Class 1E distribution system, and

b. One diesel generator with:

1. A day tank containing a minimum of 900 gallons of fuel,

2. A fuel storage tank containing a minimum of 33,000 gallons of fuel, and

3. A fuel transfer pump.

APPLICABILITY: CONDITIONS 4 and 5.

ACTION:

With less than the above required A.C. electrical power sources OPERABLE, suspend all operations involving CORE ALTERATIONS, irradiated fuel handling, positive reactivity changes or operations that have the potential of draining the reactor vessel. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.8.1.2 At least the above required A.C. electrical power sources shall be demonstrated OPERABLE per Surveillance Requirements 4.8.1.1.1, 4.8.1.1.2, except for the requirement of 4.8.1.1.2.a.5, 4.8.1.1.3 and 4.8.1.1.4.

BASES

The OPERABILITY of the A.C. and D.C. power sources and associated distribution systems during operation ensures that sufficient power will be available to supply the safety related equipment required for: (1) the safe shutdown of the facility, and (2) the mitigation and control of accident conditions within the facility. The minimum specified independent and redundant A.C. and D.C. power sources and distribution systems satisfy the requirements of General Design Criterion 17 of Appendix "A" to 10 CFR Part 50.

The ACTION requirements specified for the levels of degradation of the power sources provide restriction upon continued facility operation commensurate with the level of degradation. The OPERABILITY of the power sources are consistent with the initial condition assumptions of the accident analyses and are based upon maintaining at least one of the onsite A.C. and D.C. power sources and associated distribution systems OPERABLE during accident conditions coincident with an assumed loss of offsite power and single failure of the other onsite A.C. source.

Each of the five diesel generators is provided with a storage tank and a day tank. The 33,000 gallons required to be maintained in each of the fuel oil tanks represents a total volume of oil sufficient to operate any four diesel generators at 3250 kW for a period of 7 days. This is based on a conservative expected fuel consumption of 240 gallons per hour per engine.

The onsite fuel capacity will last longer than the time it would take to replenish the onsite supply from offsite sources (which is < 7 days). Valving is available so that fuel oil can be transferred between fuel oil storage tanks. However, administrative controls shall be in place to limit long-term total diesel generator load to ≤ 13,000 kW, and to limit individual diesel generator loading to ≤ 3250 kW.

The OPERABILITY of the minimum specified A.C. and D.C. power sources and associated distribution systems during shutdown and refueling ensures that: (1) the facility can be maintained in the shutdown or refueling condition for extended time periods, and (2) sufficient instrumentation and control capability is available for monitoring and maintaining the facility status.

The surveillance requirements for demonstrating the OPERABILITY of the diesel generators are in accordance with the recommendations of Regulatory Guide 1.9, "Selection of Diesel Generator Set Capacity for Standby Power Supplies," March 10, 1971, Regulatory Guide 1.108, "Periodic Testing of Diesel Generator Units Used as Onsite Electric Power Systems at Nuclear Power Plants," Revision 1, August 1977, and Generic Letter 84-15, "Proposed Staff Actions to Improve and Maintain Diesel Generator Reliability," July 2, 1984.

Primary containment electrical penetrations and penetration conductors are protected by either de-energizing circuits not required during reactor operation or demonstrating the OPERABILITY of primary and backup overcurrent protection circuit breakers by periodic surveillance.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 178 TO FACILITY OPERATING LICENSE DPR-57

AND AMENDMENT NO. 119 TO FACILITY OPERATING LICENSE NPF-5

GEORGIA POWER COMPANY, ET AL.

EDWIN I. HATCH NUCLEAR PLANT, UNITS 1 AND 2

DOCKET NOS. 50-321 AND 50-366

1.0 INTRODUCTION

By letter dated January 10, 1990, as supplemented January 21 and December 16, 1991, and March 5, 1992, the Georgia Power Company, et al. (the licensee), submitted a request for changes to the Edwin I. Hatch Nuclear Plant, Units 1 and 2, Technical Specifications (TSs). The requested changes would change TS 3.9/4.9, "Auxiliary Electrical Systems," (Unit 1) and TS 3/4.8.1, "A. C. Sources," (Unit 2) regarding emergency diesel generator (EDG) testing. The proposed changes are intended to eliminate discrepancies between the plants' TSs and Regulatory Guide 1.108, "Periodic Testing of Diesel Generator Units Used As Onsite Electric Power Systems At Nuclear Power Plants," and to conform to the guidance contained in Generic Letter (G.L.) 84-15, "Proposed Staff Actions to Improve and Maintain Diesel Generator Reliability," dated July 2, 1984. The January 21, 1991, letter, in response to the staff's December 14, 1990, request, the December 16, 1991, and the March 5, 1992, letters provided additional and clarifying information and proposed additional changes to the plants' TSs for EDG testing that did not change the initial proposed no significant hazards consideration determination.

2.0 EVALUATION

The asterisks that appear in the revised TS pages are discussed separately from the text later on in this section.

Change 1A: In TS 4.9.A.2.a.1 (Unit 1), add:

> A steady-state voltage of 4160 ± 420 volts and a steady-state frequency of 60 ± 1.2 Hz will be maintained.

In TS 4.9.A.2.a.2 (Unit 1), add:

> The test will verify the diesel generator will achieve and maintain a steady-state voltage of 4160 ± 420 volts and a steady-state frequency of 60 ± 1.2 Hz.

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In TSs 4.9.A.7.b.1 and 4.9.A.7.c.1 (Unit 1), add:

> and achieve and maintain a steady-state voltage of 4160 ± 420 volts and a steady-state frequency of 60 ± 1.2 Hz.

In TS 4.8.1.1.2.d.5.b (Unit 2), delete:

> energizing the auto-connected shutdown loads through the load sequencer and operates for ≥ 5 minutes while its generator is loaded with shutdown loads

and substitute:

> energizes the auto-connected shutdown loads through the load sequencer, operates for ≥ 5 minutes while its generator is loaded with shutdown loads, achieves and maintains a steady-state voltage of 4160 ± 420 volts and a steady-state frequency of 60 ± 1.2 Hz.

In TS 4.8.1.1.2.d.8.b (Unit 2), delete:

> energize the auto-connected emergency (accident) loads through the load sequencer and operates for ≥ 5 minutes while its generator is loaded with emergency loads

and substitute:

> energizes the auto-connected shutdown (emergency) loads through the load sequencer, operates for ≥ 5 minutes while its generator is loaded with emergency loads, achieves and maintains a steady-state voltage of 4160 ± 420 volts and a steady-state frequency of 60 ± 1.2 Hz.

In TS 4.8.1.1.2.a.4 (Unit 2), add:

> and maintains a steady-state voltage of 4160 ± 420 volts and a steady-state frequency of 60 ± 1.2 Hz.

In TS 4.8.1.1.2.b (Unit 2), add:

> achieves and maintains a steady-state voltage of 4160 ± 420 volts and a steady-state frequency of 60 ± 1.2 Hz.

The above changes are proposed to add acceptance criteria for EDG voltage and frequency following the guidance contained in G.L. 84-15. These changes add conservatism to the TS and are, therefore, acceptable.

Change 1B: In TSs 4.8.1.1.2.d.5.b and 4.8.1.1.2.d.8.b (Unit 2), add:

in $\leq$ 12 seconds

after:

energizes the emergency busses with permanently connected loads

Modify TS 4.9.A.7.b.1 (Unit 1), to read:

the emergency busses are deenergized, and that the diesel generators will start, energize the emergency busses with permanently connected loads in $\leq$ 12 seconds, energize the auto-connected shutdown loads through the load sequencer, operate for $\geq$ 5 minutes while the diesel generators are loaded with the shutdown loads

after:

to demonstrate that

Modify TS 4.9.A.7.c.1 (Unit 1), to read:

; and the diesel starts on the auto-start signal with permanently connected loads in $\leq$ 12 seconds, energizes the auto-connected shutdown (emergency) loads through the load sequencer, operates for $\geq$ 5 minutes while its generator is loaded with the emergency loads

after:

load shedding from the emergency buses

The above changes are proposed to add an acceptance criterion to the start time of the EDGs (with the 12 seconds being consistent with the plants' Final Safety Analysis Report and other current TSs for the plants) following the guidance contained in G.L. 84-15. Also the wording of the Unit 1 TSs is made consistent with the Unit 2 TSs. These changes add conservatism and consistency to the plants' TSs and are, therefore, acceptable.

Change 1C: In TS 4.9.A.2.a.1 (Unit 1), delete:

During the generator test, the starting air compressor shall be checked for operation and for its ability to recharge the air system

and substitute:

Verify the pressure in both diesel air start receivers to be $\geq$ 225 psig.

The above change is proposed to add consistency between both units' TSs. Also, this change represents a more definitive requirement. On this basis, the NRC staff finds it acceptable.

Change 2: In TS 4.8.1.1.2.d.9 (Unit 2), delete:

> ≥ 2950 kW for diesel generator 2A, 2547 kW for diesel generator 1B and ≥ 2928 kW for diesel generator 2C

and substitute:

> ≥ 3000 kW.

Also, delete:

> 2764-2825 kW for diesel generator 2A, 2360-2425 kW for diesel generator 1B and 2745-2825 kW for diesel generator 2C

and substitute:

> 2775-2825 kW.

In TS 4.9.A.2.a (Unit 1), add the following as a.6:

> At least once per 18 months during shutdown, verify the diesel generator operates for at least 24 hours. During the first 2 hours of this test, the diesel generator shall be loaded to ≥ 3000 kW* and during the remaining 22 hours of this test, the diesel generator shall be loaded to 2775-2825 kW*

The asterisk refers to a new footnote that reads:

> Momentary variations outside this band shall not invalidate the test.

The above loading changes represent higher loading than those currently contained in the Unit 2 TSs, are more conservative, and are, therefore, acceptable. Also, the new Unit 1 TSs are identical to the modified Unit 2 TSs, represent added conservatism, and are therefore, acceptable.

Change 3: In TS 4.8.1.1.2.d.3 (Unit 2), delete:

> a load of ≥ 798 kW while maintaining voltage at 4160 ± 400 volts and a frequency at 60 ± 2 Hz

and substitute:

> its largest single shutdown (emergency) load while maintaining voltage at 4160 ± 420 volts. For diesel generator 2A, this will be the 2A Residual Heat Removal Service Water (RHRSW) pump at rated flow; for diesel generator 1B, this would be either 1C or 2C RHRSW pump at rated flow; for diesel generator 2C,

this would be either the 2B or 2D RHRSW pump at rated flow. During these load rejection tests, the diesel generator shall not exceed the nominal speed plus 75% of the difference between nominal speed and the overspeed trip setpoint, or 15% above nominal speed, whichever is lower.

In TS 4.8.1.1.2.d.4 (Unit 2), after the words:

reject a load of

modify the original wording to read:

at least 2775 kW without tripping. The generator voltage shall not exceed 4800 volts during and following the load rejection.

In TS 4.9.A.2.a (Unit 1), add the following as a.4 and a.5, respectively:

At least once per 18 months during shutdown, verify the diesel generator capability to reject its largest single shutdown (emergency) load while maintaining voltage at 4160 ± 420 volts. For diesel generator 1A, this would be CS [core spray] pump 1A at rated flow. For diesel generator 1B, this would be either the 1C or 2C Residual Heat Removal Service Water (RHRSW) pump at rated flow. For diesel generator 1C, this would be CS pump 1B at rated flow. During the load rejection test, the diesel generator shall not exceed the nominal speed plus 75% of the difference between nominal speed and the overspeed trip setpoint, or 15% above nominal speed, whichever is less.

At least once per 18 months during shutdown, verify diesel generator capability to reject a load of at least 2775 kW without tripping. The generator voltage shall not exceed 4800 volts during and following the load rejection.

The above changes to the Unit 2 TSs follow the guidance contained in G.L. 84-15 for partial and full load rejection testing and are, therefore, acceptable. Also, the new TSs added for Unit 1 are similar to the modified Unit 2 TSs, represent added conservatism, and are, therefore, acceptable.

Change 4: At the end of TS 4.8.1.1.2.d.9 (Unit 2), add "***" that refers to the following new footnote:

> If the diesel generator fails this test, a retest may be performed after the diesel generator has been operated for ≥ 2 hours at ≥ 2565 kW.

In TS 4.9.A.7 (Unit 1), add the following as A.7.b.2:

> Within 5 minutes after completing the 24-hour load test specified in Surveillance Requirement 4.9.a.2.a.6, repeat Surveillance Requirement 4.9.A.7.b.1 with a simulated loss of offsite power start signal and run the diesel for at least 5 minutes while loaded with shutdown loads.* This test is to be performed every 18 months.

Also, renumber existing TS 4.9.A.7.b.2 as 4.9.A.7.b.3. The above asterisk refers to the following new footnote:

> If the diesel generator fails this test, a retest may be performed after the diesel generator has been operated for ≥ 2 hours at ≥ 2565 kW.

Originally the Unit 2 TSs, but not the Unit 1 TSs, required that a loss of offsite power test be performed immediately following the EDG 24-hour test. Because the revised TSs added for Unit 1 are the same as the Unit 2 TSs and represent added conservatism, we find the change acceptable.

The new footnote added to the TS is consistent with the current staff position that the whole 24-hour test does not need to be repeated if the diesel just failed the loss of offsite power test; only the loss of offsite power test needs to be repeated after the diesel generator has been operated for ≥ 2 hours at full load. Therefore, we find this change acceptable.

Change 5A: In TSs 3.8.1.1.b.2 and 3.8.1.2.b.2 (Unit 2), delete:

> 32,000

and substitute:

> 33,000.

In TSs 3.9.A.2.d (Unit 1), delete:

80,000

and substitute:

99,000.

In Bases 3/4.8 (Unit 2), add the following:

> Each of the five diesel generators is provided with a storage tank and a day tank. The 33,000 gallons required to be maintained in each of the fuel oil tanks represents a total volume of oil sufficient to operate any four diesel generators at 3250 kW for a period of 7 days. This is based on a conservative expected fuel consumption of 240 gallons per hour per engine.
>
> The onsite fuel capacity will last longer than the time it would take to replenish the onsite supply from offsite sources (which is < 7 days). Valving is available so that fuel oil can be transferred between fuel oil storage tanks. However, administrative controls shall be in place to limit long-term total diesel generator load to < 13,000 kW and to limit individual diesel generator loading to < 3250 kW.

In Bases 3.9.A.2.d (Unit 1), delete the original first paragraph and substitute:

> Each of the five diesel generators is provided with a storage tank and a day tank. The 33,000 gallons required to be maintained in each of the fuel oil tanks represents a total volume of oil sufficient to operate any four diesel generators at 3250 kW for a period of 7 days. This is based on a conservative expected fuel consumption of 240 gallons per hour per engine.
>
> The onsite fuel capacity will last longer than the time it would take to replenish the onsite supply from offsite sources (which is < 7 days). Valving is available so that fuel oil can be transferred between fuel oil storage tanks. However, administrative controls shall be in place to limit long-term total diesel generator load to < 13,000 kW and to limit individual diesel generator loading to < 3250 kW.

The above changes represent an increase in the amount of diesel fuel stored in the diesel fuel storage tanks and clarify the bases for the amount of fuel required. Because these changes add conservatism to the plants' TSs, we find them acceptable.

Change 5B: In TS 3.9.A.2.d (Unit 1), add:

> and a minimum of 900 gallons in each diesel fuel day tank.

In TS 4.9.A.2.d (Unit 1), delete the original first paragraph and substitute the following:

> The quantity of diesel fuel available in each fuel storage tank and fuel day tank shall be measured and recorded concurrently with the operability test specified for that diesel in Specification 4.9.A.2.a.1.

and renumber the existing second paragraph.

The above changes are similar to existing Unit 2 TSs, represent added conservatism, and are, therefore, acceptable.

Change 6A: In TS 4.9.A.1 (Unit 1), renumber the original paragraph as "a" and add the following as "b":

> Demonstrate manual and automatic transfer of unit power supply from the normal circuit to alternate circuit for each of the required circuits from offsite at least once per 18 months.

This change is a new surveillance requirement similar to a Unit 2 surveillance, represents added conservatism, and is, therefore, acceptable.

Change 6B: In TS 4.9.A.2.a (Unit 1), add the following as a.3:

> At least once per 18 months during shutdown, subject the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service.

This change is a new surveillance similar to a Unit 2 surveillance, represents added conservatism, and is, therefore, acceptable.

Change 6C: In TS 4.8.1.1.2.d.10 (Unit 2), delete:

> 2 hour rating of 3135 kW

and substitute:

> 2000-hour rating of 3100 kW

In TS 4.9.A.2.a (Unit 1), add the following as a.7:

> At least once per 18 months during shutdown, verify that the auto-connected loads to each diesel generator do not exceed 3100 kW.

The Unit 2 change follows the guidance for this surveillance requirement contained in G.L. 84-15 and is, therefore, acceptable. The Unit 1 change is a new surveillance requirement equivalent to the modified Unit 2 surveillance, represents added conservatism, and is, therefore, acceptable.

Change 6D: In TS 4.9.A.2.a (Unit 1), add the following as a.8:

> At least once per 18 months during shutdown, verify the diesel generator's capability to synchronize with the offsite power source while the generator is loaded with its emergency loads upon a simulated restoration of offsite power, to transfer its loads to the offsite power source, and to proceed through its shutdown sequence.

This change is a new surveillance requirement similar to a Unit 2 surveillance, represents added conservatism, and is, therefore, acceptable.

Change 6E: In TS 4.9.A.2.a (Unit 1), add the following as a.9:

> At least once per 18 months during shutdown, verify that with the diesel generator operating in the test mode (connected to its bus), a simulated LOCA actuation signal overrides the test mode by returning the diesel generator to standby operation and automatically energizes the emergency loads with offsite power.

In TS 4.8.1.1.2.d.12 (Unit 2), delete:

> safety injection signal overrides the test mode by

and substitute:

> LOCA actuation signal overrides the test mode by:

The Unit 1 change is a new surveillance requirement similar to a Unit 2 surveillance, represents added conservatism, and is, therefore, acceptable. The Unit 2 change is editorial in nature and is considered acceptable.

Change 6F: In TS 4.8.1.1.2.d.13 (Unit 2), add "associated" between "each" and "fuel storage tank."

This change is editorial in nature, is added for clarification and is, therefore, acceptable.

In TS 4.9.A.2.e (Unit 1), add the following as e.2:

> The operation of the diesel fuel oil transfer pumps to transfer fuel from each associated fuel storage tank to the day tank of each diesel via the installed cross connection lines shall be demonstrated at least once per 18 months during shutdown.

This change is a new surveillance requirement similar to a Unit 2 surveillance, represents added conservatism, and is, therefore, acceptable.

Change 6G: In TS 4.9.A.2.a (Unit 1), add the following as a.10:

> At least once per 10 years, or after any modifications which could affect diesel generator interdependence, verify that all three diesel generators start simultaneously during shutdown, and accelerate to synchronous speed in ≤ 12 seconds.

This change is a new surveillance requirement similar to a Unit 2 surveillance, represents added conservatism, and is, therefore, acceptable.

Change 6H: In TS 3.9.A.2 (Unit 1), add the following as A.2.e:

> Fuel Oil Transfer Pumps
>
> A fuel oil transfer pump shall be operable and capable of transferring fuel oil from the storage system to the day tank.

In TS 4.9.A.2.e (Unit 1), delete the original paragraph and substitute the following as A.2.e.1:

> The operation of the diesel fuel oil transfer pumps to transfer fuel from the storage system to the day tank shall be demonstrated concurrent with the operability test specified for that diesel in Specification 4.9.A.2.a.1.

The above changes add a new limiting condition for operation (LCO) and a new surveillance requirement for the fuel oil transfer pumps similar to a Unit 2 surveillance, represent added conservatism, and are, therefore, acceptable.

Change 6I: In TS 4.9.A.7.b.1 (Unit 1), add "also" between "the testing of the undervoltage logic shall" and "demonstrate the operability." Also, substitute:

> 4160-volt load shedding and auto bus transfer circuits, and that the subsequent loading is in accordance with the design requirements (±10% of its design interval)

for:

> 4160-volt load shedding, auto bus transfer circuits.

This change is a new surveillance requirement similar to a Unit 2 surveillance, represents added conservatism, and is, therefore, acceptable.

Also, delete TS 4.8.1.1.2.d.7 (Unit 2) in its entirety to eliminate unnecessary testing of the EDGs per the guidance contained in G.L. 83-30, "Deletion of Standard Technical Specification Surveillance Requirements 4.8.1.1.2.d.6 for Diesel Generator Testing."

Change 6J: In TS 4.9.A.7.c.1 (Unit 1), delete:

> both loss of offsite power and a degraded voltage condition

and substitute:

> a loss of offsite power.

In TS 4.8.1.1.2.d.8 (Unit 2), delete:

> with separate tests a 1) degraded voltage condition and 2).

This change is intended to reduce unnecessary testing, is consistent with current Standard TS (STS) and is, therefore, acceptable.

Change 6K: In TS 4.9.A.7.c (Unit 1), add the following as c.3:

> Verify once per 18 months during shutdown that all diesel generator trips except engine overspeed, low lube oil pressure, and generator differential are automatically bypassed upon loss of voltage on the emergency bus concurrent with an ECCS actuation signal.

This change is a new surveillance requirement similar to a Unit 2 surveillance, represents added conservatism, and is, therefore, acceptable.

Change 6L: Delete TSs 3.9.A.7.d and 4.9.A.7.d (Unit 1) in their entirety.

The surveillance of the 600-V load shedding logic system covered by the above TSs are explicit and unique to the Unit 1 TSs. Since equivalent surveillance requirements are implicitly contained in Unit 1 TS 4.9.A.7.c.1 and the change adds consistency with the Unit 2 TSs, we find the change acceptable.

Change 6M: In TS 4.9.A.7.b.1 (Unit 1), delete:

> scheduled refueling outage

and substitute:

> 18 months during shutdown

in the first line.

In TS 4.9.A.7.c.1 (Unit 1), delete:

per operating cycle

and substitute:

every 18 months during shutdown

in the first line.

These changes are intended to add consistency between Unit 1 and Unit 2 TSs. Therefore, we find this change acceptable.

Change 6N: In the Bases 3.9.A.2 (Unit 1), delete:

a 2750-KW continuous rating

and substitute:

a 2850-KW continuous rating.

This change adds the correct continuous rating and is acceptable.

Change 6O: In TSs 4.8.1.1.2.d.5.b and 4.8.1.1.2.d.8.b (Unit 2), delete from the first line:

from ambient conditions.

In TS 4.9.A.7.c.1 (Unit 1), delete:

from ambient conditions.

These changes are consistent with current STS and are, therefore, acceptable.

Change 6P: In TS 4.9.A.7.a (Unit 1), delete:

core spray system

and substitute:

ECCS.

Also, add at the end of the paragraph

Each diesel generator shall operate on standby for $\geq$ 5 minutes.

This change is consistent with the Unit 2 TSs and current STS and is, therefore, acceptable.

Change 7A: In TS 4.9.A.2.a.1 (Unit 1) after "Staggered Test Basis," add an "*" that refers to a new footnote shown below. In TS 4.8.1.1.2.a.4 (Unit 2), add a "**" at the end that refers to the same footnote.

> For the 1B (swing) diesel, a single test will satisfy the requirements for Unit 1 Specification 4.9.A.2.a.1 and Unit 2 Specification 4.8.1.1.2.a.4 with the diesel connected to one unit's emergency bus for one periodic test and connected to the emergency bus in the other unit during the next periodic test.

The above change is intended to reduce the unnecessary double monthly testing of the swing EDG 1B that results from requirements in Unit 1 and Unit 2 TSs.

With this change, EDG 1B will only be tested once a month although operability is still required for both units. This meets the intent of the recommendations for reduced EDG testing contained in G.L. 84-15 and is, therefore, acceptable.

Change 7B: At the end of TS 4.9.A.2.a.2 (Unit 1), add an "*" that refers to the new footnote shown below. At the end of Specification 4.8.1.1.2.b (Unit 2), add a "**" that refers to the same footnote.

> A single 6-month (184-day) test for the 1B diesel will satisfy the requirements for Unit 1 Specification 4.9.A.2.a.2 and Unit 2 Specification 4.8.1.1.2.b. The 6-month test will be performed using the starting circuitry and emergency bus from one unit. The next 6-month test will be performed using the starting circuitry and emergency bus from the other unit.

The above change is intended to reduce the unnecessary double testing every 6 months of the swing EDG 1B resulting from surveillance requirements contained in both the Unit 1 and Unit 2 TSs. With this change, EDG 1B will be tested only once during the 6-month testing. This change meets the intent of the recommendations for reduced EDG testing contained in G.L. 84-15 and is, therefore, acceptable.

Change 7C: At the end of revised TSs 4.9.A.2.a.3, 4.9.A.2.a.4, and 4.9.A.2.a.5 (Unit 1), add an "*" that refers to the following new footnote:

> For the 1B diesel generator, a single full load rejection test every 18 months will satisfy the requirements of Unit 1 Specification 4.9.A.2.a.5 and Unit 2 Specification 4.8.1.1.2.d.4. A single partial load rejection test every 18 months will satisfy the requirements of Unit 1 Specification 4.9.A.2.a.4 and Unit 2 Specification 4.8.1.1.2.d.3. A single diesel inspection will satisfy the requirements of Unit 1 Specification 4.9.A.2.a.3 and Unit 2 Specification 4.8.1.1.2.d.1.

At the end of revised TS 4.9.A.2.a.6 (Unit 1), add a "**" that refers to the following new footnote:

> For the 1B diesel generator, a single 24-hour load test every 18 months will satisfy the requirements of Unit 1 Specification 4.9.A.2.a.6 and Unit 2 Specification 4.8.1.1.2.d.9.

At the end of TS 4.8.1.1.2.d.1 (Unit 2), add a "***" that refers to the following new footnote:

> For the 1B diesel generator, a single diesel inspection every 18 months will satisfy the requirements of Unit 1 Specification 4.9.A.2.a.3 and Unit 2 Specification 4.8.1.1.2.d.1.

At the end of the TS 4.8.1.1.2.d.3 (Unit 2), add an "*" that refers to the following new footnote:

> For the 1B diesel generator, a single partial load rejection test every 18 months will satisfy the requirements of Unit 1 Specification 4.9.A.2.a.4 and Unit 2 Specification 4.8.1.1.2.d.3.

At the end of TS 4.8.1.1.2.d.4 (Unit 2), add an "*" that refers to the following new footnote:

> For the 1B diesel generator, a single full load rejection test every 18 months will satisfy the requirements of Unit 1 Specification 4.9.A.2.a.5 and Unit 2 Specification 4.8.1.1.2.d.4.

At the end of the second sentence in TS 4.8.1.1.2.d.9 (Unit 2), add a "**" that refers to the following new footnote:

> For the 1B diesel generator, a single 24-hour load test every 18 months will satisfy the requirements of Unit 1 Specification 4.9.A.2.a.6 and Unit 2 Specification 4.8.1.1.2.d.9.

The above changes are intended to reduce the unnecessary double testing of the swing EDG 1B during the 18-month inspection, 24-hour load test, and partial and full load rejection tests required by the current Unit 1 and Unit 2 TSs. These changes meet the intent of the recommendations contained in G.L. 84-15 and are, therefore, acceptable.

Change 7D: In the original TSs 4.9.A.2.a.1 and 4.9.A.2.a.2 (Unit 1), replace the "*" with "**" that refers to the original footnote: "Momentary variations..."

This is an editorial change related to Change 7C. Therefore, it is acceptable.

Change 8: Delete the original TS 4.8.1.1.2.e (Unit 2) and renumber original TS 4.8.1.1.2.f (Unit 2) as 4.8.1.1.2.e.

TS 4.8.1.1.2.e currently requires that every 5 years the EDGs be started at least 5 times with the air start receivers pressurized to 225 psig and their compressors secured. Deleting this TS will reduce unnecessary EDG testing and is consistent with the intent of G.L. 84-15 and the latest staff position. On this basis, the NRC staff finds this change acceptable.

Change 9: In the Bases 3/4.8 (Unit 2) on page B 3/4 8-1 at the end of the sixth paragraph, add:

> and Generic Letter 84-15, "Proposed Staff Actions to Improve and Maintain Diesel Generator Reliability," July 2, 1984.

This change is editorial in nature and reflects the current staff requirements for EDG testing. On this basis, it is acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Georgia State official was notified of the proposed issuance of the amendments. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendments change requirements with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The NRC staff has determined that the amendments involve 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 amendments involve no significant hazards consideration, and there has been no public comment on such finding (55 FR 20354). Accordingly, the amendments meet 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 amendments.

5.0 CONCLUSION

The Commission has 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

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