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HL-790
0344V

January 10, 1990

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

PLANT HATCH - UNITS 1, 2
NRC DOCKETS 50-321, 50-366
OPERATING LICENSES DPR-57, NPF-5
REQUEST TO REVISE TECHNICAL SPECIFICATIONS:
EMERGENCY DIESEL GENERATORS

Gentlemen:

In accordance with the provisions of 10 CFR 50.90, as required by 10 CFR 50.59(c)(1), Georgia Power Company (GPC) hereby proposes changes to the Plant Hatch Units 1 and 2 Technical Specifications (TS), Appendix A to Operating Licenses DPR-57 and NPF-5.

The proposed changes involve a revision of the Plant Hatch Units 1 and 2 TS relative to the testing of Emergency Diesel Generators (EDGs).

During the Safety System Functional Inspection (SSFI) of the EDGs, GPC committed to perform a comparison of the Technical Specifications (TS) and NRC Regulatory Guide (RG) 1.108 to evaluate discrepancies and revise the TS, if necessary. We also committed to revise the TS to require additional fuel storage capacity. Proposed changes include the following:

1. Voltage and frequency acceptance criteria have been added for EDG testing consistent with BWR/4 Standard Technical Specifications (STS), RG 1.108, and RG 1.9.

2. Several new Surveillance Requirements (SRs) have been added to the Unit 1 TS, primarily the 18-month SRs currently in the Unit 2 TS. The proposed changes will make both Unit 1 and Unit 2 TS consistent with RG 1.108, even though Unit 1 is not officially committed to this RG. New Unit 1 requirements include a 24-hour load test and a full and partial load rejection test every 18-months.

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3. Plant Hatch has a swing diesel which is required to be operable for both units. Surveillance testing is performed and tracked for Plant Hatch Units 1 and 2 separately, resulting in the swing diesel being tested twice as often. The proposed Unit 1 18-month testing requirements from item (2) will cause even more "double testing" of the 1B swing diesel. It is proposed to relax "double testing" for the periodic (monthly or weekly), six-month, and selected 18-month tests.

4. The storage tanks of all five EDGs will be required to contain at least 33,000 gallons of fuel, and additional testing requirements for fuel oil transfer pumps will be added to the Unit 1 TS.

The enclosures to this letter detail the actual proposed changes.

Enclosure 1 provides a detailed description of the proposed changes and the circumstances necessitating the change request.

Enclosure 2 details the basis for GPC's determination that the proposed changes do not involve significant hazards considerations.

Enclosure 3 provides page change instructions for incorporating the proposed changes. The proposed revised TS pages follow Enclosures 3.

To allow time for procedure revisions and orderly incorporation into copies of the Technical Specifications, GPC requests the proposed amendments, once approved by the NRC, be issued with an effective date to be no later than 60 days from the issuance of the amendments.

Normally the 60-day effective date allows for the implementing procedures to be approved and validated. Required testing would be performed to keep the surveillance current on the affected component or system. However, this TS revision adds many new SRs, many of which should be performed during a maintenance/refueling (M/R) outage. For this amendment we would propose that the 18-month SRs need not be performed until the next M/R outage (i.e., will be assumed "current"), provided that the amendment is issued more than 60 days prior to the start of the outage. The new 10-year Unit 1 surveillance requiring simultaneous starting of the EDGs will be performed during the same Unit 1 M/R outage.

Our review also concluded that changes to the TS were not required to meet an SSFI commitment relative to fuel oil sampling. However, changes to procedures which incorporate parameters, acceptance criteria, and sampling techniques have been made, as stated in our July 7, 1989 letter to the NRC.

In accordance with the requirements of 10 CFR 50.91, a copy of this letter and all applicable enclosures will be sent to Mr. J. L. Ledbetter of the Environmental Protection Division of the Georgia Department of Natural Resources.

Mr. W. G. Hairston, III states that he is a Senior Vice President of Georgia Power Company and is authorized to execute this oath on behalf of Georgia Power Company and that, to the best of his knowledge and belief, the facts set forth in this letter and enclosures are true.

GEORGIA POWER COMPANY

By: for W. G. Hairston, III

Sworn to and subscribed before me this 10th day of January 1990.

Notary Public

My Commission Expires May 22, 1993

GKM/eb

Enclosures:
1. Basis for Change Request
2. 10 CFR 50.92 Evaluation
3. Page Change Instructions

c: Georgia Power Company
Mr. H. C. Nix, General Manager - Nuclear Plant
Mr. J. D. Heidt, Manager Engineering and Licensing - Hatch
GO-NORMS

U.S. Nuclear Regulatory Commission, Washington, D.C.
Mr. L. P. Crocker, Licensing Project Manager - Hatch

U.S. Nuclear Regulatory Commission, Region II
Mr. S. D. Ebneter, Regional Administrator
Mr. J. E. Menning, Senior Resident Inspector - Hatch

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ENCLOSURE 1

PLANT HATCH - UNITS 1, 2
NRC DOCKETS 50-321, 50-366
OPERATING LICENSES DPR-57, NPF-5
REQUEST TO REVISE TECHNICAL SPECIFICATIONS:
EMERGENCY DIESEL GENERATORS

BASIS FOR CHANGE REQUEST

BACKGROUND:

During the Safety System Functional Inspection (SSFI) of the Emergency Diesel Generators (EDGs), GPC committed to perform a comparison of the Technical Specifications (TS) and NRC Regulatory Guide (RG) 1.108 to evaluate discrepancies and revise the TS, if necessary. We also committed to revise the TS to require additional fuel storage capacity. The proposed changes would do the following:

(1) Voltage and frequency acceptance criteria have been added for EDG testing consistent with BWR/4 Standard Technical Specifications (STS), RG 1.108, and RG 1.9. Steady-state acceptance criteria for EDG tests are discussed in Proposed Change 1, and dynamic acceptance criteria for load rejection testing is discussed in Proposed Change 3.

(2) Several new Surveillance Requirements (SRs) have been added to the Unit 1 TS, primarily the 18-month SRs currently in the Unit 2 TS. The proposed changes will make both Unit 1 and Unit 2 TS fairly consistent with RG 1.108, even though Unit 1 is not officially committed to this RG. New Unit 1 requirements include a 24-hour load test and a full and partial load rejection test every 18-months. These requirements are discussed in Proposed Changes 2, 3, 4, and 6.

(3) Plant Hatch has a swing diesel which is required to be operable for both units. Surveillance testing is performed and tracked for Units 1 and 2 separately, resulting in the swing EDG being tested twice as often. The proposed Unit 1 18-month testing requirements from item (2) will cause even more "double testing" of the 1B swing diesel. It is proposed to relax "double testing" for the periodic (monthly or weekly), six-month, and selected 18-month tests. Proposed Change 7 discusses these revised requirements.

(4) The storage tanks of all five EDGs will be required to contain at least 33,000 gallons of fuel, and additional testing requirements for fuel oil transfer pumps will be added to the Unit 1 TS. Proposed Change 5 discusses these revised requirements.

REQUEST TO REVISE TECHNICAL SPECIFICATIONS:
EMERGENCY DIESEL GENERATORS

BASIS FOR CHANGE REQUEST

PROPOSED CHANGE 1:

Proposed Change 1 would add steady-state voltage and frequency acceptance criteria to several EDG surveillance requirements. Specifically, Unit 2 SR 4.8.1.1.2.a.4 and Unit 1 SR 4.9.A.2.a.1 (monthly or weekly test depending on EDG failure rate) will require the EDG to maintain voltage within ± 10% (± 420 volts) and frequency within ± 2% (± 1.2 Hz) after reaching steady state. These same steady-state voltage and frequency acceptance criteria are proposed for the six-month test in Unit 2 SR 4.8.1.1.2.b and Unit 1 SR 4.9.A.2.a.2. Additionally, Unit 2 SR 4.8.1.1.2.d.5.b and Unit 1 SR 4.9.A.7.b.1 (simulated loss of offsite power [LOSP] and/or degraded voltage) and Unit 2 SR 4.8.1.1.2.d.8.b and Unit 1 SR 4.9.A.7.c.1 (simulated LOSP plus ECCS signal) will have the same steady-state voltage and frequency acceptance criteria. During these tests, it will be considered acceptable to verify the voltage and frequency once during the first five minutes and approximately every 15 minutes thereafter. Also, a requirement to energize the emergency buses within 12 seconds has been added to Unit 2 SRs 4.8.1.1.2.d.5.b and 4.8.1.1.2.d.8.b. Unit 1 SRs 4.9.A.7.b.1 and 4.9.A.7.c.1 have been reworded to be consistent with the corresponding Unit 2 requirements. In addition, a requirement for the periodic test to verify the pressure in both air start receivers is at least 225 psig has been added to Unit 1 SR 4.9.A.2.a.1. This change is consistent with the existing Unit 2 requirement (4.8.1.1.2.a.6).

BASIS:

This proposed change adds requirements to both the Unit 1 and Unit 2 TS. The acceptance criteria for voltage and frequency are consistent with the diesel generator STS transmitted with NRC Generic Letter (GL) 84-15, "Proposed Staff Actions to Improve and Maintain Diesel Generator Reliability," dated July 2, 1984. Adding the acceptance criteria of less than or equal to 12 seconds to energize the emergency buses during the 18-month test simulating a degraded voltage or LOSP condition (with and without a simulated ECCS signal) is also consistent with the STS contained in GL 84-15.

REQUEST TO REVISE TECHNICAL SPECIFICATIONS:
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BASIS FOR CHANGE REQUEST

PROPOSED CHANGE 2:

This proposed change modifies criteria for the 24-hour load test required each 18-months by Unit 2 SR 4.8.1.1.2.d.9. It also adds a similar requirement to Unit 1 (proposed SR 4.9.A.2.a.6) which would be performed each 18-months. The proposed TS would require the first two hours of the 24-hour test be performed at loads equal to or larger than 2950 kW, which is above the EDG continuous rating of 2850 kW. For the remaining 22 hours of the test, the EDGs would be loaded between 2775-2825 kW.

BASIS:

The proposed loadings are higher than those currently in Unit 2 SR 4.8.1.1.2.d.9, but substantially lower than those recommended by RG 1.108. The RG recommends the EDG be run at its two-hour rating for the first two hours. This is unrealistic since the EDG would require substantial maintenance after running at the two-hour rating for two hours (i.e., the test would be abusive to the EDG). The proposed load ranges are consistent with the recommendations of our EDG vendor and are compatible with the recommendations of GL 84-15. Proposed Change 2 also adds a 24-hour load test requirement in the Unit 1 TS with the same loading requirements. This new SR is identical with the revised Unit 2 requirement, and will make the SRs on the 5 EDGs more consistent.

It should be noted that, under certain conditions, emergency operating procedures could permit loading of the EDGs to 3250 kW. However, testing of the EDGs at this level would greatly accelerate wear to the engine and is not prudent. Discussions with our EDG vendor have concluded that overload testing of EDG's to $\geq$ 2950 kW is acceptable.

PROPOSED CHANGE 3:

This proposed change modifies the criteria for the partial and full load rejection tests currently performed every 18-months per Unit 2 SR 4.8.1.1.2.d.3 and SR 4.8.1.1.2.d.4, respectively. It also adds similar requirements to the Unit 1 TS in proposed SR 4.9.A.2.a.4 and 4.9.A.2.a.5. The surveillance frequency for the Unit 1 tests would be every 18-months.

ENCLOSURE 1 (Continued)

REQUEST TO REVISE TECHNICAL SPECIFICATIONS:
EMERGENCY DIESEL GENERATORS

BASIS FOR CHANGE REQUEST

BASIS:

Current Unit 2 SR 4.8.1.1.2.d.3 requires the EDG reject 798 kW and maintain certain voltage and frequency limits every 18-months. A review of RG 1.108 indicates the load rejected should be the largest single emergency load. The largest single emergency load for EDGs 2A, 1B and 2C is a Residual Heat Removal Service Water (RHRSW) pump which could draw more than 798 kW. A review of the STS in GL 84-15 and RG 1.9 indicates our current acceptance criteria is too stringent relative to permissible EDG overspeed (frequency). Therefore, the Unit 2 SR has been changed to verify the capability to reject a load equal to the RHRSW pump at rated flow, while maintaining a frequency no higher than the nominal speed plus 75% of the difference between nominal speed and the overspeed trip setpoint or 15% above nominal, whichever is less. Acceptable voltage limits are specified as 4160 $\pm$ 420V, which are virtually identical with the current Unit 2 requirements. Proposed Change 3 also adds a partial load rejection test for Unit 1 per proposed SR 4.9.A.2.a.4. Maximum single emergency load for EDG 1A and 1C corresponds to a Core Spray pump load. The test will be performed each 18 months, and will be very similar to the proposed Unit 2 requirements (i.e., reject a load equivalent to the core spray pump at rated flow).

Proposed Change 3 also modifies the criteria for the full load rejection test (Unit 2 SR 4.8.1.1.2.d.4) to require all EDG's be capable of rejecting at least 2775 kW while maintaining voltage of less than 4800 volts and not tripping the EDG. The required 2775 kW load is close to the EDG continuous rating of 2850 kW, and equal to the lowest permissible loading required during the last 22 hours of the 24-hr EDG load test (see Proposed Change 2). The full load rejection test could therefore be performed at the conclusion of the 24 hour test, if desired. The maximum acceptable voltage acceptance criteria of 4800 volts for the load rejection test has been reviewed by our EDG vendor and determined to be within the design limits of the Plant Hatch EDGs. Overspeed (frequency) limits, although less stringent than the current Unit 2 TS, are consistent with the STS and RG 1.9. The current Unit 2 surveillance frequency for this test is each 18-months, which would not be modified. Proposed Unit 1 SR 4.9.A.2.a.5 has also been added to require a similar full load rejection test every 18-months. The requirement to perform a full load rejection test would be the same for both units, and the proposed acceptance criteria for the test are consistent with the STS and RG 1.9.

REQUEST TO REVISE TECHNICAL SPECIFICATIONS:
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BASIS FOR CHANGE REQUEST

PROPOSED CHANGE 4:

Unit 2 TS 4.8.1.1.2.d.9 currently requires that within 5 minutes following the 24-hour load test, the EDG be restarted via a simulated LOSP, and that automatically connected emergency loads be energized and loaded on the EDG (i.e., re-perform SR 4.8.1.1.2.d.5). Proposed Change 4 would add a similar requirement to immediately retest the EDG to the Unit 1 TS (proposed SR 4.9.A.7.b.2). However, both requirements would allow the EDG restart test to be performed following either the 24-hour load test or immediately following any running of the EDG which raises it to normal operating temperature (e.g., one hour at $\geq$ 60% of rated load).

BASIS:

Allowing the EDG to be retested immediately following any test which bring it to normal operating temperature (rather than just following the 24-hour test) is not addressed in RG 1.108. However, it is justified because the purpose of the retest is to verify the EDG will start, energize the emergency buses within 12 seconds, and energize the emergency (shutdown) loads properly when the EDG is warm. If the EDG were to fail this restart test after the 24-hour test under the current Unit 2 TS, it would be necessary to rerun the 24 hour test. This could be considered unnecessarily abusive to the EDG and contrary to the intent of GL 84-15.

PROPOSED CHANGE 5:

Unit 2 TS 3.8.1.1.b.2 and 3.8.1.2.b.2 will be modified to require each of the 5 EDG's oil tanks contain 33,000 gallons of fuel. Unit 1 TS 3.9.A.2.d will require 99,000 gallons for the three EDGs. Unit 2 Bases Section 3/4.8, and Unit 1 Bases 3.9.A.2.d have been modified accordingly. Unit 1 Limiting Condition for Operation (LCO) 3.9.A.2.d and SR 4.9.A.2.d will be modified to require a 900 gallon minimum supply in each EDG day tank to be verified monthly, consistent with current Unit 2 LCO 3.8.1.1.b.1 and 3.8.1.2.b.1. A note has been added to Unit 2 TS 3.8.1.1.b.1 and 3.8.1.2.b.1 and Unit 1 modified TS 3.9.A.2.d, allowing the EDG to be considered operable (up to four hours) with less than 900 gallons in the day tank during verification of fuel transfer pump flow.

REQUEST TO REVISE TECHNICAL SPECIFICATIONS:
EMERGENCY DIESEL GENERATORS

BASIS FOR CHANGE REQUEST

BASIS:

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 4 EDGs at 3250 kW for a period of 7 days. The onsite fuel capacity will last longer than the time it would take to replenish the onsite supply from offsite sources. The proposed Specifications also add consistency to the requirements for the 5 EDGs. Adding a requirement on the day tank volume to Unit 1 is a conservative change which also adds consistency.

The operability of the fuel oil transfer pumps is verified monthly per Unit 2 SR 4.8.1.1.2.a.3 and Unit 1 proposed SR 4.9.A.2.e.1. This test, however, simply verifies the pumps run and transfer fuel to the day tank. The fuel oil transfer pump has excess capacity relative to the EDG consumption rate, so, if the pump is not secured, the day tank will have at least 900 gallons of fuel.

During periodic testing, the fuel transfer pump is secured, the EDG run, and the pump operability is verified. The day tank may have slightly below 900 gallons prior to starting the fuel transfer pumps. In addition, GPC may be adding a periodic test to verify the fuel transfer pump flow capability, similar to pump testing currently performed on safety system pumps per ASME Section XI in-service testing. This will require an accurate, reproducible test which verifies pump flow. The fuel transfer pumps at Plant Hatch do not have flow instrumentation. Also, the transfer pump flow capability is high enough and the day tank high and low level setpoints close enough so the pump would normally run only about 3 minutes. In order to accurately determine pump flow and account for transient effects of filling the transfer piping, it may be necessary to lower the level in the day tank below 900 gallons. Therefore, notes have been added to the Unit 1 and Unit 2 LCOs to allow for less than 900 gallons in the day tank while performing these tests. A time limit of four hours has been specified before the EDG would be declared inoperable and the unit placed in a Limiting Condition for Operation.

PROPOSED CHANGE 6:

The proposed change would add many other SRs to the Unit 1 TS, in addition to those discussed in Proposed Changes 1-5. Most of these additional requirements are 18-month tests currently in the Unit 2 TS. Specifically, Unit 1 SR 4.9.A.1.b would be added to demonstrate manual and automatic transfer of unit power supply from the normal circuit to alternate circuit for each offsite required circuit each 18-months. The new Unit 1 requirement corresponds to Unit 2 SR 4.8.1.1.1.b.

REQUEST TO REVISE TECHNICAL SPECIFICATIONS:
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BASIS FOR CHANGE REQUEST

Proposed Unit 1 SR 4.9.A.2.a.3 requires an EDG inspection each 18-months. This corresponds to existing Unit 2 SR 4.8.1.1.2.d.1.

Proposed Unit 1 SR 4.9.A.2.a.7 adds the 18-month surveillance requirement to verify automatically connected loads to each EDG do not exceed 3100 kW. This new requirement is consistent with Unit 2 SR 4.8.1.1.2.d.10. Note that the Unit 2 requirement has been modified to reflect the verification of loads less than or equal to the 2000 hour rating of 3100 kW.

Proposed Unit 1 SR 4.9.A.2.a.8 requires the EDG to synchronize with the offsite power source while it is loaded with shutdown loads upon a simulated restoration of offsite power, and transfer its loads and proceed to shutdown. This new requirement is consistent with existing Unit 2 SR 4.8.1.1.2.d.11.

Proposed Unit 1 SR 4.9.A.2.a.9 would require that the EDG, operating in the test mode, will be overridden from the test mode by a simulated safety injection signal, return to standby, and automatically energize the emergency loads with offsite power. This new requirement is consistent with existing Unit 2 SR 4.8.1.1.2.d.12.

Proposed Unit 1 SR 4.9.A.2.e.2 requires the fuel oil transfer pumps be verified capable of transferring fuel from each fuel storage tank to the day tank of each EDG via cross-tie lines. This surveillance, which would be performed every 18 months, is consistent with Unit 2 SR 4.8.1.1.2.d.13.

Proposed Unit 1 SR 4.9.A.2.a.10 would require simultaneous starts of the EDGs once per 10 years or after any modifications which could affect EDG interdependence. This new requirement is consistent with existing (but renumbered) Unit 2 SR 4.8.1.1.2.e. The new Unit 1 SR would require a simultaneous start of EDGs 1A, 1B, and 1C, since the 1B (swing) EDG is normally aligned to Unit 1.

Proposed Unit 1 LCO 3.9.A.2.e and SR 4.9.A.2.e require that the EDG fuel transfer pump be operable, capable of transferring fuel from the storage tank to the day tank, and that it be demonstrated operable during the periodic (monthly) test. This new SR is consistent with Unit 2 SR 4.8.1.1.2.a.3.

Existing Unit 1 SR 4.9.A.7.b.1 has been modified to be consistent with Unit 2 SRs 4.8.1.1.2.d.2, 4.8.1.1.2.d.5 and 4.8.1.1.2.d.7. The modified SR would include verifying the load sequence timer is operable and the EDG performs properly under simulated degraded voltage and LOSP conditions.

BASIS FOR CHANGE REQUEST

Also, existing Unit 1 SR 4.9.A.7.c.1 has been modified to be consistent with existing Unit 2 SR 4.8.1.1.2.d.8.a and 4.8.1.1.2.d.8.b. This SR calls for the EDG to be tested separately under both a simulated degraded voltage condition and a simulated LOSP concurrent with an ECCS actuation signal, and verifies proper performance.

Proposed Unit 1 SR 4.9.A.7.c.3 would require that all EDG 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 new requirement is consistent with Unit 2 SR 4.8.1.1.2.d.8.c.

The proposed change will delete the requirement to verify the 600 volt load shedding logic system is operable in TS 3.9.A.7.d and 4.9.A.7.d. The Unit 2 TS, and the STS transmitted with GL 84-15 do not explicitly specify such a requirement.

Minor Unit 1 changes include changing "every scheduled refueling outage" to "each 18-months" on several SRs for consistency with the Unit 2 wording. Also Unit 1 Bases Section 3.9.A.2 has been modified to reflect the current EDG continuous rating of 2850 kW and allow a simultaneous start per Proposed SR 4.9.A.2.a.10.

BASIS:

Except for the deletion of the requirement to verify the 600-V load shedding system is operable, Proposed Change 6 adds requirements to the Unit 1 TS, and is therefore a conservative change. This change (along with Proposed Changes 1-5) make the Unit 1 and 2 TS requirements for EDG testing more consistent.

Deletion of TS 3.9.A.7.d and 4.9.A.7.d (600-V load shedding logic system test) is justified because the additional requirements described in Proposed Changes 1-6 make the Unit 1 TS consistent with the Unit 2 TS and the BWR/4 STS transmitted with GL 84-15. These TS do not contain requirements to demonstrate initiation of load shedding on the diesel auxiliary boards, reactor MOV boards, and the 600-V shutdown boards. However, both the Unit 2 TS and the proposed Unit 1 TS contain requirements to verify EDG load shedding capability, including the non-essential 600 V loads. For example, existing Unit TS 4.9.A.7.b.1 and 4.9.A.7.c.1 have been modified to be consistent with Unit 2 and STS requirements, and verify proper de-energization of the emergency buses and load shedding from the emergency buses.

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BASIS FOR CHANGE REQUEST

PROPOSED CHANGE 7:

As discussed previously, Plant Hatch has 5 EDGs. Emergency diesel generator 1B is a swing diesel, and may supply power to emergency bus in either unit. Since it is shared, operability, testing, and failure tracking have historically been performed for each unit separately. Adding all the new requirements to Unit 1 aggravates the situation of "double testing" the 1B EDG even more. The following is proposed for the periodic, six-month and 18-month testing. The periodic test is currently performed on a schedule listed in Unit 1 Table 4.9-1 and Unit 2 Table 4.8.1.1.2-1, and is either monthly or weekly depending on the EDG failure rate.

Explanatory notes have been added to Unit 1 TS 3.9.A.2 and Unit 2 TS 3.8.1.1.b allowing control of the EDG to be taken locally while warming up and barring over the diesel engine during surveillance testing.

Periodic Testing - Currently the 1B diesel is usually tested twice per month (once per unit) per U1 TS 4.9.A.2.a.1 and U2 TS 4.8.1.1.2.a.4. The periodic test calls for taking control of the diesel locally, lowering governor setting, prelubing, and starting engine with the local start button. Once the EDG is warm the local switch is placed back to remote.

It is proposed to only test the 1B once per month by starting it locally, connecting it to the first units emergency bus and loading it to 1710-2000 kW, running it for $\geq$ 30 minutes, then separating from the first unit and connecting to the other unit for $\geq$ 30 minutes while loading it to 1710-2000 kW. This method has the obvious advantage of reducing by approximately 50% the number of 1B diesel starts. Tracking of start failures of the 1B would be on a common unit basis.

Notes reflecting periodic testing requirements on the 1B EDG are referenced in Unit 1 TS 4.9.A.2.a.1 and Units 2 TS 4.8.1.1.2.a.4.

Six-Month Testing - During this test, the diesel is started from the corresponding unit's control room. The "fast-cold" start of the 1B would only have to be done once every six-months and would be initiated using the starting circuitry on one unit for one six-month test, and the starting circuitry on the other unit at the next six-month test. Notes have been added to Unit 1 TS 4.9.A.2.a.2 and Unit 2 TS 4.8.1.1.2.b reflecting these revised requirements.

ENCLOSURE 1 (Continued)

REQUEST TO REVISE TECHNICAL SPECIFICATIONS:
EMERGENCY DIESEL GENERATORS

BASIS FOR CHANGE REQUEST

18-Month Testing - The EDG inspection, 24 hour load test, partial and full load rejection tests will be performed only once per 18-months and will satisfy both the Unit 1 and Unit 2 requirements. All other tests will be done separately for both units since they involve more than a demonstration of EDG capability to carry and reject loads. Notes have been added to proposed Unit 1 TS 4.9.A.2.a.3, a.4, a.5, a.6 and Unit 2 TS 4.8.1.1.2.d.1, d.3, d.4, d.9 reflecting these revised requirements.

BASIS:

The periodic (monthly) test demonstrates the capability of the EDG to start, run, and supply load to the associated emergency bus. The EDG is started locally, not from the main control room (MCR), and run for approximately 1 hour, per the EDG vendor recommendations and those of GL 84-15. The 1B EDG is currently started twice monthly from the same local panel and connected to one unit's emergency bus during one test, and to the other unit's emergency bus during the other test. Since the monthly test does not verify the auto start from the MCR or verify the EDG's ability to reach synchronous speed and accept accident loads, it is not necessary to run the 1B EDG twice each month. The requirement to run the EDG on each emergency bus for $\geq$ 30 minutes is justified. The tracking of start failures and increased testing resulting from any start failure of the 1B would be on a "per diesel" basis (common to both units). As is currently the case, operability of the 1B EDG is required for both units.

The six-month test starts the EDG from the MCR and verifies the EDG accelerates to synchronous speed in $\leq$ 12 seconds. Prior to the issuance of GL 84-15 (and Unit 1 and Unit 2 TS Amendments based on GL 84-15) all EDG tests were "fast cold" start tests. However, the frequency of these tests was reduced because they were considered abusive to the EDG. The 1B EDG currently is tested twice per six-months. The revised requirement would "fast cold" start the 1B EDG each six-months from alternating control rooms, such that it would be started from each unit at least once per 12 months. Logic system functional testing is performed on EDG starting logic routinely at both units.

Certain 18-month surveillances on the EDG verify its capability to carry and reject loads, and certain SRs verify EDG emergency load sequencing and performance under simulated LOSP and LOCA conditions. For the 1B swing EDG, it is proposed that the 24-hour load test, and the full and partial load rejection test be performed once per 18 months frequency, since these SRs verify EDG load carrying capability. The requirement to perform an inspection of the EDG will also be required only once per 18 months.

ENCLOSURE 1 (Continued)

REQUEST TO REVISE TECHNICAL SPECIFICATIONS:
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BASIS FOR CHANGE REQUEST

Adding numerous 18-month SRs to the Unit 1 TS that were already required by Unit 2 TS will aggravate "double testing" of the 1B EDG. For example, the 24-hr load test, the full and partial load rejection test, and the inspection are not required by current Unit 1 TS and would have to be done twice to the 1B swing EDG unless specific exception is taken.

The following SRs will be performed every 18 months for each unit, effectively meaning the 1B will be tested twice each 18 months.

Surveillance Requirements	Description
Proposed Unit 1 SR 4.9.A.2.a.8 Existing Unit 2 SR 4.8.1.1.2.d.11	Requires EDG to synchronize with the offsite power source while it is loaded with shutdown loads upon a simulated restoration of offsite power, and transfer its loads and proceed to shutdown.
Proposed Unit 1 SR 4.9.A.2.a.9 Existing Unit 2 SR 4.8.1.1.2.d.12	Requires that the EDG, operating in the test mode, be overridden from the test mode by a simulated safety injection signal, return to standby, and automatically energize the emergency loads with offsite power.
Modified Unit 1 SR 4.9.A.7.b.1 Existing Unit 2 SRs 4.8.1.1.2.d.2, d.5, d.7	Requires verification that the load sequence timer is operable and the EDG performs properly under simulated degraded voltage and LOSP conditions.
Modified Unit 1 SR 4.9.A.7.c.1 Existing Unit 2 SR 4.8.1.1.2.d.8.a, and d.8.b.	Requires EDG to operate properly under both a simulated LOSP and concurrent ECCS signal and under a simulated degraded voltage condition.
Proposed Unit 1 SR 4.9.A.7.c.3 Existing Unit 2 SR 4.8.1.1.2.d.8.c	Requires that all EDG trips except engine overspeed, low lube oil pressure, and generator differential be automatically bypassed upon loss of voltage on the emergency bus, concurrent with an ECCS actuation signal.

ENCLOSURE 1 (Continued)

REQUEST TO REVISE TECHNICAL SPECIFICATIONS:
EMERGENCY DIESEL GENERATORS

BASIS FOR CHANGE REQUEST

Generic Letter 84-15 and our EDG vendor recommended reducing the number of fast cold starts on the EDGs, and Unit 1 TS Amendment 147 and Unit 2 TS Amendment 83 allow gradual loading of the EDG during periodic (monthly or weekly) testing. Also, our EDG vendor recommends barring or rolling over the diesel engine. Control must be taken locally to perform these functions, although only for a brief period of time. While the control switch is in local, the EDG will not automatically respond to initiating signals and, if needed, align itself in the safety mode as it would with the control room switch in test. However, the time required to warm up and bar-over the engine is short, and during most of the surveillance testing the control switch will be in test. Also, personnel performing the test will be in communication with the control room, and could take action in the unlikely event the EDG is required while warming or barring-over the engine. The notes referenced in Unit 1 TS 3.9.A.2 and Unit 2 TS 3.8.1.1.b allow control to be taken locally without the EDG being considered inoperable for the purposes of required actions.

PROPOSED CHANGE 8:

Proposed Change 8 would delete current Unit 2 SR 4.8.1.1.2.e which requires the EDG to be started 5 times in a row and quickly accelerated to verify the capacity of the air start receivers.

BASIS:

Deleting this TS requirement will reduce the number of unnecessary tests on the EDGs. The primary reason for this test is to verify adequate equipment sizing of the air start system, which is not expected to change unless modifications are performed to the air start system or EDG. This requirement is part of pre-operational testing, but does not appear in the STS provided in GL 84-15.

ENCLOSURE 2

PLANT HATCH - UNITS 1, 2
NRC DOCKETS 50-321, 50-366
OPERATING LICENSES DPR-57, NPF-5
REQUEST TO REVISE TECHNICAL SPECIFICATIONS:
EMERGENCY DIESEL GENERATOR

10 CFR 50.92 EVALUATION

PROPOSED CHANGE 1:

Proposed Change 1 would add steady-state voltage and frequency acceptance criteria to several EDG surveillance requirements. Specifically, Unit 2 SR 4.8.1.1.2.a.4 and Unit 1 SR 4.9.A.2.a.1 (monthly or weekly test depending on EDG failure rate) will require the EDG to maintain voltage within ± 10% (± 420 volts) and frequency within ± 2% (± 1.2 Hz) after reaching steady state. These same steady-state voltage and frequency acceptance criteria are proposed for the six-month test in Unit 2 SR 4.8.1.1.2.b and Unit 1 SR 4.9.A.2.a.2. Additionally, Unit 2 SR 4.8.1.1.2.d.5.b and Unit 1 SR 4.9.A.7.b.1 (simulated loss of offsite power [LOSP] and/or degraded voltage) and Unit 2 SR 4.8.1.1.2.d.8.b and Unit 1 SR 4.9.A.7.c.1 (simulated LOSP plus ECCS signal) will have the same steady-state voltage and frequency acceptance criteria. Also, a requirement to energize the emergency buses within 12 seconds has been added to Unit 2 SRs 4.8.1.1.2.d.5.b and 4.8.1.1.2.d.8.b. Unit 1 SRs 4.9.A.7.b.1 and 4.9.A.7.c.1 have been reworded to be consistent with the corresponding Unit 2 requirements. In addition, a requirement for the periodic test to verify the pressure in both air start receivers is at least 225 psig has been added to Unit 1 SR 4.9.A.2.a.1. This change is consistent with the existing Unit 2 requirement (4.8.1.1.2.a.6).

BASIS:

Georgia Power Company has evaluated this proposed change and determined it involves no significant hazards considerations.

This proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated. The change adds acceptance criteria to periodic (monthly), six-month, and several 18-month EDG tests, makes the Unit 1 SRs consistent with the corresponding Unit 2 requirements and added a new SR or Unit 1. The proposed change will result in more complete testing. The EDG's will not be functionally altered and will continue to function as designed. Adding these additional test requirements and acceptance criteria will not reduce the reliability of the Unit 1 and Unit 2 EDGs.

ENCLOSURE 2 (Continued)

REQUEST TO REVISE TECHNICAL SPECIFICATIONS:
EMERGENCY DIESEL GENERATORS

BASIS FOR CHANGE REQUEST

The proposed change does not create the possibility of a new or different kind of accident from any previously evaluated, because the EDGs and on-site electric power system will not be altered. The EDGs will continue to respond and function in the same manner.

The proposed change does not involve a significant decrease in the margin of safety because the EDGs will continue to respond as before to mitigate analyzed transients and accidents. Adding testing requirements and acceptance criteria will result in a more meaningful test, reduce inconsistencies between the Unit 1 and Unit 2 TS, and not reduce the EDG reliability.

PROPOSED CHANGE 2:

This proposed change modifies criteria for the 24-hour load test required each 18-months by Unit 2 SR 4.8.1.1.2.d.9. It also adds a similar requirement to Unit 1 (proposed SR 4.9.A.2.a.6) which would also be performed each 18-months. The proposed TS would require the first two hours of the 24-hour test be performed at loads equal to or greater than 2950 kW, which is above the EDG continuous rating of 2850 kW. For the remaining 22 hours of the test, the EDGs would be loaded between 2775-2825 kW.

BASIS:

Georgia Power Company has evaluated this proposed change and determined it involves no significant hazards considerations.

This proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated. The change modifies test criteria for the Unit 2 EDGs and adds the test requirement and criteria to Unit 1. The proposed change will not modify the EDGs on either unit and they will continue to function as before to mitigate the consequences of an accident. Our EDG vendor has concurred that the specified load ranges on the EDGs are acceptable for an 18-month test, and will not degrade their reliability.

This proposed change does not create the possibility of a new or different kind of accident from any previously evaluated because the on-site electric power system will not be altered. The EDGs will respond and function in the same manner as they do currently.

ENCLOSURE 2 (Continued)

REQUEST TO REVISE TECHNICAL SPECIFICATIONS:
EMERGENCY DIESEL GENERATORS

BASIS FOR CHANGE REQUEST

This proposed change does not involve a significant decrease in the margin of safety because the EDGs will continue to respond to mitigate analyzed transients and accidents as before. Our EDG vendor concurs that the load ranges specified will not degrade EDG reliability and adding the 24-hour load test requirement will make Unit 1 and Unit 2 testing requirements more consistent.

PROPOSED CHANGE 3:

This proposed change modifies the criteria for the partial and full load rejection tests currently performed every 18-months per Unit 2 SR 4.8.1.1.2.d.3 and SR 4.8.1.1.2.d.4, respectively. It also adds similar requirements to the Unit 1 TS in proposed SR 4.9.A.2.a.4 and 4.9.A.2.a.5. The surveillance frequency for the Unit 1 tests would also be every 18-months.

BASIS:

Georgia Power Company has evaluated this proposed change and determined it involves no significant hazards considerations.

This proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated. The revised loading criteria for both the full and partial load rejection tests are more restrictive than those presently in the Unit 2 TS, and represent new requirements for Unit 1. Voltage and frequency criteria are less stringent than those currently in the Unit 2 TS, but compatible with the STS, RG 1.9, and our EDG vendor recommendations. The EDGs will continue to function as before to mitigate the consequences of an accident.

This proposed change does not create the possibility of a new or different kind of accident from any previously evaluated because the on-site electric power system will not be altered. The EDGs will respond and function in the same manner as they do currently.

This proposed change does not involve a significant decrease in the margin of safety because the EDGs will continue to mitigate analyzed transients and accidents as before. Testing requirements will be similar on all 5 EDGs and consistent with industry standards and recommendations, and not degrade EDG reliability.

ENCLOSURE 2 (Continued)

REQUEST TO REVISE TECHNICAL SPECIFICATIONS:
EMERGENCY DIESEL GENERATORS

BASIS FOR CHANGE REQUEST

PROPOSED CHANGE 4:

Unit 2 TS 4.8.1.1.2.d.9 currently requires that within 5 minutes following the 24-hour load test, the EDG be restarted via a simulated LOSP, and that automatically connected emergency loads be energized and loaded on the EDG (i.e., re-perform SR 4.8.1.1.2.d.5). Proposed Change 4 would add a similar requirement to immediately retest the EDG to the Unit 1 TS (proposed SR 4.9.A.7.b.2). However, both requirements would allow the EDG restart test to be performed following either the 24-hour load test or immediately following any running of the EDG which raises it to normal operating temperature (e.g., one hour at $\geq$ 60% of rated load).

BASIS:

Georgia Power Company has evaluated this proposed change and determined it involves no significant hazards considerations.

The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated. The EDGs will function as before to mitigate analyzed transients and accidents.

The proposed change does not create the possibility of a new or different kind of accident from any previously evaluated because the revised Unit 2 TS will still verify that the EDG can start and load properly when warm. The current testing requirement could result in unnecessary testing of the EDG because if the EDG failed its restart, the 24 hour load test would have to be rerun. This constitutes a new testing requirement for Unit 1 and therefore a conservative change.

This proposed change does not involve a significant decrease in the margin of safety because the EDGs will continue to respond as before to mitigate transients and accidents. Requirements for all 5 EDGs will be similar and will not result in abusive testing of the EDGs. Since the increased testing will not be abusive, EDG reliability will continue to be acceptable.

ENCLOSURE 2 (Continued)

REQUEST TO REVISE TECHNICAL SPECIFICATIONS:
EMERGENCY DIESEL GENERATORS

BASIS FOR CHANGE REQUEST

PROPOSED CHANGE 5:

Unit 2 TS 3.8.1.1.b.2 and 3.8.1.2.b.2 will be modified to require each of the 3 EDG's oil tanks contain 33,000 gallons of fuel. Unit 1 TS 3.9.A.2.d will require 99,000 gallons for the three EDGs. Unit 2 Bases Section 3/4.8, and Unit 1 Bases 3.9.A.2.d have been modified accordingly. Unit 1 Limiting Condition for Operation (LCO) 3.9.A.2.d and SR 4.9.A.2.d will be modified to require a 900 gallon minimum supply in each EDG day tank to be verified monthly, consistent with current Unit 2 LCO 3.8.1.1.b.1 and 3.8.1.2.b.1. A note has been added to Unit 2 TS 3.8.1.1.b.1 and 3.8.1.2.b.1 and Unit 1 modified TS 3.9.A.2.d, allowing the EDG to be considered operable (up to four hours) with less than 900 gallon in the day tank during verification of fuel transfer pump flow.

BASIS:

Georgia Power Company has evaluated this proposed change and determined it involves no significant hazards consideration.

This proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated. Requiring all five EDG oil tanks to contain 33,000 gallons of oil and adding a SR to Unit 1 on fuel transfer pump operability and day tank volume are conservative changes. Allowing the associated EDG to be considered operable during pump flow testing will not increase the probability of consequences of an accident significantly since the alloted time is short (4 hours), the EDG would still function upon receipt of a start signal, and the testing improves the confidence that the fuel transfer pump is functioning properly.

This proposed change does not create the possibility of a new or different kind of accident from any previously evaluated because the EDGs will respond and function as before.

This proposed change does not involve a significant decrease in the margin of safety. The EDGs will continue to mitigate analyzed transients and accidents. Testing requirements will be similar for all five EDGs, and will not decrease the reliability of the EDGs.

REQUEST TO REVISE TECHNICAL SPECIFICATIONS:
EMERGENCY DIESEL GENERATORS

BASIS FOR CHANGE REQUEST

PROPOSED CHANGE 6:

This proposed change would add many other SRs to the Unit 1 TS, in addition to those discussed in Proposed Changes 1-5. Most of these additional requirements are 18-month tests currently in the Unit 2 TS. The additional requirements are discussed in Enclosure 1, under "Proposed Change 6". The current Unit 1 TS requirement (Specifications 3.9.A.7.d and 4.9.A.7.d) to verify load shedding on specific non-essential 600-V loads would be deleted.

BASIS:

Georgia Power Company has evaluated this proposed change and determined it involves no significant hazards considerations.

The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated. Except for deleting one specific Unit 1 TS, the change adds testing requirements to The Unit 1 TS, but does not modify the EDGs in either unit. The change adds consistency to the testing requirements for all five EDGs. Deletion of existing Unit 1 TS 3.9.A.7.d and 4.9.A.7.d is justified because the requirement does not exist in the Unit 2 TS, or in the STS, and proper load shedding of the 600-V loads will be verified during the testing required by modified Unit 1 SR 4.9.A.7.b.1 and 4.9.A.7.c.1.

The proposed change does not create the possibility of a new or different kind of accident from any previously evaluated because the EDGs will still function and respond in the same manner.

The proposed change does not involve a significant decrease in the margin of safety because the EDGs will respond and mitigate analyzed transients and accidents as they do currently. The new SRs will not degrade EDG reliability and will make the testing of all five EDGs consistent.

PROPOSED CHANGE 7:

Plant Hatch has five EDGs. Emergency diesel generator 1B is a swing diesel, and may supply power to emergency buses in either unit. Since it is shared, operability, testing, and failure tracking have historically been performed for each unit separately. Adding all the new requirements to Unit 1, aggravates the situation of "double testing" the 1B even more. Proposed Change 7 allows for periodic testing (including the six-month

BASIS FOR CHANGE REQUEST

test) of the 1B EDG to be reduced to the same frequency as the other four EDGs. Eighteen-month SRs which demonstrate the EDG's capability to carry and reject loads would be performed on the 1B EDG only once per 18 months. Also, notes have been added allowing control to be taken locally while warming up and barring over the diesel engine.

BASIS:

Georgia Power Company has evaluated this proposed change and determined it involves no significant hazards considerations.

This proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated. Unnecessary testing of the 1B EDG will be avoided, provided the purpose of the test is primarily to demonstrate the EDG capability to start and carry and reject loads. Many of the 18-month tests added to the Unit 1 TS (see Proposed Changes 1-6) will have to be performed every 18 months for each unit, effectively meaning the 1B will be tested twice every 18 months. The 1B EDG will still be tested at least as frequently as the other four EDGs, and will continue to respond and function as designed. Allowing control to be taken locally for while warming up and barring over the diesel engine is justified because the time period is brief, the practice enhances the reliability of the EDG, and also allows GPC to follow NRC and vendor guidance.

The proposed change does not create the possibility of a new or different kind of accident from any previously evaluated because the 1B EDG will still function and respond in the same manner.

The proposed change does not involve a significant decrease in the margin of safety because the 1B EDG will respond to mitigate transients and accidents as it does currently. The 1B EDG will be tested throughly to ensure high reliability. Taking control locally for brief periods of time allows GPC to test the EDG in a manner prescribed by the NRC and the EDG vendor.

PROPOSED CHANGE 8:

Proposed Change 8 would delete current Unit 2 SR 4.8.1.1.2.e which requires the EDG to be started five times in a row and quickly accelerated to verify the capacity of the air start receivers.

REQUEST TO REVISE TECHNICAL SPECIFICATIONS:
EMERGENCY DIESEL GENERATORS

BASIS FOR CHANGE REQUEST

BASIS:

Georgia Power Company has evaluated the proposed change and determined it involves no significant hazards considerations.

The proposed change does not involve a significant increase in the probability of consequences of an accident previously evaluated. Deleting the requirement will reduce the number of unnecessary EDG tests. The primary reason for the test is to verify adequate sizing of the air start system. This is not expected to change.

The proposed change does not create the possibility of a new or different kind of accident from any previously evaluated because the EDGs will function and respond in the same manner.

The proposed change does not involve a significant decrease in the margin of safety because the EDGs will respond to mitigate transients and accidents as they do currently. The capacity of the air start system is not expected to change unless modifications are performed, so the test is not normally necessary.