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March 31, 1986

Director of Nuclear Reactor Regulation
Attention: Mr. D. Muller, Project Director
BWR Project Directorate No. 2
Division of Boiling Water Reactor Licensing
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

NRC DOCKETS 50-321, 50-366
OPERATING LICENSES DPR-57, NPF-5
EDWIN I. HATCH NUCLEAR PLANT UNITS 1 AND 2
REQUEST TO REVISE EMERGENCY POWER
SYSTEM TECHNICAL SPECIFICATIONS

Gentlemen:

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

The proposed changes would provide improvements to the Technical Specifications surveillance requirements which will enhance the reliability of the diesel generators. This submittal amends and supercedes Georgia Power Company's previous submittal of November 7, 1984. The previous submittal also included certain changes based on Probabilistic Risk Assessment (PRA). Per NRC request, the PRA-based changes will be separately submitted.

Attachment 1 provides a detailed description of the proposed changes and their bases.

Attachment 2 details the basis for our determination that the proposed changes do not involve a significant hazards consideration (Attachment 2.a for Unit 1; Attachment 2.b for Unit 2).

Attachment 3 provides page change instructions for incorporating the proposed changes (Attachment 3.a for Unit 1; Attachment 3.b for Unit 2).

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Attention: Mr. D. Muller, Project Director
BWR Project Directorate No. 2
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Page Two

The proposed changed Technical Specification pages for Units 1 and 2 follow Attachment 3.a and Attachment 3.b respectively.

Payment of filing fee is not required, since this submittal supersedes our submittal of November 7, 1984.

In order to allow time for procedure revision and orderly incorporation into copies of the Technical Specifications, we request that the proposed amendment, once approved by the NRC, be issued with an effective date to be no later than 60 days from the issuance of the amendment.


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

James P. O'Reilly states that he is 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 the letter and attachments are true.

GEORGIA POWER COMPANY

By: 
James P. O'Reilly

Sworn to and subscribed before me this 31st day of March 1986.


Notary Public

Notary Public, Clayton County, Georgia

REB/ME Commission Expires Dec. 12, 1989

Attachments

c: Mr. H. C. Nix, Jr.
Senior Resident Inspector, Plant Hatch
Dr. J. N. Grace
Mr. J. L. Ledbetter
GO-NORMS

ATTACHMENT 1

NRC DOCKETS 50-321, 50-366 OPERATING LICENSES DPR-57, NPF-5 EDWIN I. HATCH NUCLEAR PLANT UNITS 1 AND 2 BASIS FOR CHANGE REQUEST

I. BACKGROUND:

The proposed changes will provide improvements to the Technical Specifications which will enhance the reliability of the diesel generators. The Hatch 1 and 2 Technical Specifications contain Limiting Conditions for Operation and Surveillance Requirements to demonstrate diesel generator operability. Georgia Power Company and the diesel manufacturer (Colt Industries) have determined that certain Technical Specification requirements are not beneficial to the performance of the onsite emergency power system and should be revised. These proposed changes will reduce the number of "fast cold" starts, eliminate excessive testing, and reduce the frequency of certain testing determined to be abusive. The bases for these proposed changes are discussed in detail below.

II: BASES:

The Hatch 1 and 2 Technical Specifications each require under normal operating conditions that two offsite AC electrical power sources and three onsite diesel generator AC electrical power sources be operable. Hatch 1 Technical Specification 4.9.A.2.a requires that each diesel generator be tested monthly. Hatch 2 Technical Specification 4.8.1.1.2.a implements the testing schedule given in Regulatory Guide 1.108 Rev. 1, August 1977 for routine periodic surveillance testing of the diesel generators. Regulatory Guide 1.108 Rev. 1, August 1977 relates the frequency of testing to the number of test failures on a per nuclear unit basis, i.e. failures totaled from all three diesels. The test intervals vary in four steps proceeding from 31 days, to 14 days, to 7 days, and finally as frequently as 3 days depending on the number of failures experienced in the last 100 tests.

Georgia Power Company proposes revised test schedules for Hatch 1 (reference proposed Surveillance Requirement 4.9.A.2.a) and Hatch 2 (reference proposed Surveillance Requirement 4.8.1.1.2.a) using the general criteria given in Regulatory Guide 1.108 Rev. 1, August 1977, with the exception that routine testing be conducted at intervals of 31 days and 7 days based on the number of failures per diesel in the last 20 tests. The 3 day test has been omitted since a three-day test interval may generate conditions adverse to long-term reliability of the diesels due to increased wear. The 14 day interval was deleted for overall simplification of the test schedule.

ATTACHMENT 1 (continued)

Although the proposed test schedule continues to depend upon test failure experience, it is on a per diesel basis rather than on a per nuclear unit basis. It is our belief that the test schedule should not be based on the concept that failure experienced on a particular diesel would adversely affect the performance of the other diesels, but, rather, should be based on individual diesel generator reliability. Therefore, failures on one diesel should not force increased testing of the other diesels. This change is supported by NRC Generic Letter 84-15. The proposed change in the test interval basis from the number of failures per 100 tests to the number of failures per 20 tests will provide a more sensitive indication of diesel reliability based upon the most recent test performance. This measure will avoid excessive testing due to a poor test record which has been improved by recent changes or modifications.

In addition, the definition of STAGGERED TEST BASIS, as stated in the Unit 2 Technical Specifications will be added to the definitions in the Unit 1 Technical Specifications since this term will be referenced in the body of the Technical Specifications.

The proposed changes to the Hatch 1 Technical Specifications (reference proposed Surveillance Requirements 4.5.A.2, 4.5.B.2, 4.5.C.3, and 4.5.J.2) also eliminate diesel generator testing when certain emergency core cooling systems (Core Spray and Low Pressure Coolant Injection) and essential service water systems (RHR Service Water and Plant Service Water) are declared inoperable. For reasons similar to those discussed above, regarding the requirements of Regulatory Guide 1.108, failures experienced in the ECCS and RHR service water systems will not adversely affect the performance of the diesel generators. Failure of a division of Plant Service Water will cause the diesel associated with that division to be declared inoperable. Increased testing of the other diesel generators under such circumstances is without basis and should not be required. This proposed change is consistent with the philosophy of Standard Technical Specifications, including Hatch 2, which do not require additional testing of the diesel generators when other safety related systems are declared inoperable. Generic Letter 84-15 also encourages licensees to delete this requirement to avoid excessive testing of the diesels.

Hatch 2 Technical Specification 3.8.1.1, Action Statement a., requires that every diesel be tested within one hour and every eight hours thereafter in the event an emergency AC source or offsite power source is declared inoperable. To be consistent with the philosophy of reducing excessive testing and thereby enhancing the reliability of the diesel generators, Georgia Power proposes that when an emergency AC source is declared inoperable, the remaining diesels be demonstrated operable

ATTACHMENT 1 (continued)

within 24 hours. Additional testing should not be required. Diesel testing within the first 24 hours will provide assurance that no starting problems exist with the diesels and will provide additional time for inspection prior to the test. A 24 hour interval will also eliminate abusive quick diesel startups and stops that are presently required to test all diesels within one hour. Such testing is abusive to the diesel generators since, according to manufacturer's recommendations, they should each be operated at load for at least one hour when started. This is not possible under the current testing requirements. This proposed change is consistent with the Technical Specifications given in Generic Letter 84-15.

The proposed changes to Hatch 2 Technical Specification 3.8.1.1 separate existing Action Statement a. into two new Action Statements, a. and b. Also, existing Action Statements b., c., and d. are changed to Action Statements c., d., and e. in the proposed changes, and are modified to be consistent with the requirements of proposed Action Statements a. and b. In addition, proposed Action Statement e. changes the allowable time from 2 hours to 24 hours to restore one of the two inoperable diesels to operable status. Two hours does not allow enough time to troubleshoot and properly repair a problem. In addition, existing Action Statement c. allows 24 hours to restore one of two inoperable offsite power circuits (preferred source of emergency power) to operable status. For consistency, the diesels should have the same LCO requirement as that allowed for offsite power.

The Hatch 1 Technical Specifications similarly contain additional diesel generator testing requirements when an offsite power source or diesel generator is declared inoperable (reference Surveillance Requirements 4.9.B.1 and 4.9.B.2). For reasons previously discussed, Georgia Power requests that changes be made to Hatch 1 Surveillance Requirements 4.9.B.1 and 4.9.B.2, respectively, in order to eliminate excessive testing of the diesel generators. Similarly, the additional diesel testing required by Hatch 1 Surveillance Requirement 4.5.G should also be deleted to eliminate excessive testing when a diesel generator is declared inoperable. Surveillance requirements have been incorporated for offsite power sources (reference proposed Hatch 1 Surveillance requirement 4.9.A.1) to verify offsite power availability and breaker alignments. Such requirements are presently included in the Hatch 2 Technical Specifications (reference Hatch 2 Surveillance Requirement 4.8.1.1.1.a).

To reduce wear on the diesel generators, it has been recommended by the manufacturer that testing required by Hatch 2 Surveillance Requirements 4.8.1.1.2.a.4 and 4.8.1.1.2.a.5 be modified in addition to the changes to the action statements contained in Specification 3.8.1.1 discussed above. Requiring the diesels to reach synchronous speed in less than or

ATTACHMENT 1 (continued)

equal to 12 seconds (Specification 4.8.1.1.2.a.4) results in abusive quick starts of the diesels during routine tests and when additional surveillance is required by the Action Statements for Specification 3.8.1.1. Requiring the diesels to accept rated loads in less than or equal to 120 seconds (Specification 4.8.1.1.2.a.5) also represents a strenuous routine test. The purpose of routine testing should be to implement manufacturer's recommended testing and to verify starting and load handling capability, rather than to simulate accident conditions. Therefore, it is proposed to delete the requirement for "fast cold" starts from routine testing by allowing the diesels to be gradually loaded. As recommended in Generic Letter 84-15, the "fast cold" start testing to simulate accident conditions would be performed only every 6 months (proposed Specification 4.8.1.1.2.b). The proposed Specification 4.8.1.1.2.a.4 combines the start test and one-hour load run test. Similar testing requirements to those discussed above for Hatch 2 are proposed for Hatch 1 (proposed Surveillance Requirements 4.9.A.2.a.1 and 4.9.A.2.a.2).

Regarding load testing of the diesel generators, the Hatch 2 Technical Specifications (Surveillance Requirement 4.8.1.1.2.a.5) require that the diesel generators be tested at rated loads (2764 kW for 2A, 2360 kW for 1B, and 2742 kW for 2C). To preclude the possibility of overloading the diesels during testing, the diesel manufacturer has recommended that a load range be specified. The diesel manufacturer also recommends that the diesels always be loaded to a minimum of 60% of rated load (1710kW) when started during regular testing. Therefore, Georgia Power proposes (reference proposed Specification 4.8.1.1.2.a.4) a load range of 1710-2000 kW for routine testing of the diesel generators and the following load range for the 6 month fast cold start testing; 2764-2825 kW for diesel 2A, 2360-2425 kW for diesel 1B, and 2742-2825 kW for diesel 2C (reference proposed Specification 4.8.1.1.2.b). A footnote has also been added to allow momentary variations outside the specified range without invalidating the test.

Hatch 1 Technical Specifications Surveillance Requirement 4.9.A.2.a requires the diesel generators to be tested at 50% or greater of rated load when demonstrating operability. It is proposed that Hatch 1 diesel generators be tested at 60% (1710 kW) of the diesel rating (2850 kW) to agree with the diesel manufacturer's recommendations for routine testing. A load range should also be provided (1710 kW-2000 kW) to make it simpler to load the diesels for testing. A load range is also proposed for incorporation into Surveillance Requirement 4.9.A.2.a.2. The proposed load range for diesels 1A and 1C is 2250-2400 kW. Diesel generator 1B (which is the shared diesel) will be tested at the higher Unit 2 load range (2360-2425 kW) to eliminate double testing requirements between the two Units' Technical Specifications.

As another effort to reduce the number of unnecessary or abusive tests on

ATTACHMENT 1 (continued)

the diesel generators, and thereby increase reliability, it has been recommended by the diesel manufacturer that Hatch 2 Surveillance Requirement 4.8.1.1.2.c.14 be modified. Currently, this 18-month Surveillance Requirement requires five successive starts of the diesels to verify the capability of the air start receivers. It is proposed (reference proposed Specification 4.8.1.1.2.d) that this test be performed only once per five years since the primary reason for this test is to demonstrate adequate equipment sizing of the air start system, which would not be expected to change. Reverification of the performance of the air start receivers will be maintained, but on a reduced time frequency (every five years). As a result, the diesels will be subjected to a significantly reduced number of abusive tests which require quick engine starts and stops.

Overload testing of the diesel generators does not contribute to the dependability or the longevity of the equipment, but instead accelerates wear. It may also impede seating or reseating of engine power parts, whether they are new or have been subjected to prior distress. Hatch 2 Surveillance Requirement 4.8.1.1.2.c.9 presently requires a 24-hour test of the diesel generators. During the first two hours of the test, the diesel is placed in an overload condition. The loading on the diesel is then reduced to its rated load the following 22 hours. This represents an abusive test requirement for the diesels that could degrade reliability. Therefore, it is proposed (reference proposed Specification 4.8.1.1.2.c.9), per the diesel manufacturer's recommendation, that the 24-hour test be modified to require rated load testing of the diesels during the first 22 hours to allow engine preconditioning, and that the diesels then be subjected to overload operation during the last two hours of the test. Similarly, as discussed earlier, load ranges are also provided to assure proper diesel testing.

III. CONCLUSION:

These proposed changes to the Hatch 1 and 2 Technical Specifications are consistent with the recommendations made by the diesel generator manufacturer and are compatible with the recommendations of Generic Letter 84-15. They represent an optimization of the current testing requirements and should provide positive improvements to diesel generator reliability.

ATTACHMENT 2

NRC DOCKETS 50-321, 50-366
OPERATING LICENSES DPR-57, NPF-5
EDWIN I. HATCH NUCLEAR PLANT UNITS 1 AND 2
10 CFR 50.92 EVALUATION

Pursuant to 10 CFR 50.92, the Plant Review Board and Safety Review Board have reviewed the attached proposed amendment to the Plant Hatch Units 1 and 2 Technical Specifications and have determined that implementation of the proposed changes would not involve a significant hazard. The detailed bases for this determination are contained in Attachment 2.a (Unit 1) and Attachment 2.b (Unit 2).

REFERENCES:

- o Hatch 1 Technical Specifications 3.5/4.5, "Core and Containment Cooling Systems"; 3.9/4.9, "Auxiliary Electrical Systems"; and 6.9, "Administrative Controls".
- o Hatch 1 FSAR Section 8.4, "Standby AC Power Supply"; 6.4.3, "Core Spray System"; 6.4.4, "Low Pressure Coolant Injection"; 10.6, "RHR Service Water System"; and 10.7, "Plant Service Water System".
- o Hatch 2 Technical Specifications 3/4.8.1, "AC Sources-Operating", and 6.9, "Administrative Controls".
- o Hatch 2 FSAR Section 8.3, "Onsite Power System"; 6.3, "Emergency Core Cooling System"; 9.2, "Water System".
- o Regulatory Guide 1.108, Revision 1, August 1977, "Periodic Testing of Diesel Generator Units Used as Onsite Electric Power Systems at Nuclear Power Plants".
- o NRC Generic Letter 84-15, July 2, 1984.

ATTACHMENT 2.a

NRC DOCKET 50-321
OPERATING LICENSE DPR-57
EDWIN I. HATCH NUCLEAR PLANT UNIT 1
10 CFR 50.92 EVALUATION

Pursuant to 10 CFR 50.92, Georgia Power has evaluated the proposed amendment and has determined that its adoption would not involve a significant hazard. The basis for this determination is as follows:

a. PROPOSED CHANGES

Change the Core Spray system Limiting Conditions for Operation (3.5.A.2), Surveillance Requirements (4.5.A.2), and Bases (3.5.A.2) to delete the requirement for demonstrating diesel generator operability when Core Spray system components are inoperable.

Change the LPCI system Limiting Conditions for Operation (3.5.B.2.a and 3.5.B.2.b), Surveillance Requirements (4.5.B.2.a and 4.5.B.2.b), and Bases (3.5.B.2) to delete the requirement for demonstrating diesel generator operability when LPCI system components are inoperable.

Change the RHR Service Water system Surveillance Requirements (4.5.C.3) to delete the requirement for demonstrating diesel generator operability when two RHR service water pumps are inoperable.

BASIS

These proposed changes are consistent with the philosophy of Standard Technical Specifications (including Hatch 2) which do not require additional testing of the diesel generators when other safety related systems are declared inoperable. Generic Letter 84-15 encourages licensees to delete this requirement to avoid excessive testing of the diesels. In addition, the proposed testing requirements for the diesel generators described in item d. below represent a more frequent routine test interval than currently exists in the Hatch 1 Technical Specifications. Also, a failure of core spray, LPCI, or RHR service water system components will not adversely effect the performance of the diesel generators.

GPC has reviewed the proposed changes and has determined they do not involve a significant hazards consideration for the following reasons:

ATTACHMENT 2.a (continued)

- (1) The proposed changes will not significantly increase the probability or consequences of an accident previously evaluated, because the new testing methods proposed should provide increased assurance of diesel generator availability, if required for accident conditions, and thus should decrease the consequences of analyzed accidents.
- (2) The proposed changes will not create the possibility of a new or different accident from any accident previously evaluated, because no physical modifications or new modes of operation are involved in conjunction with these proposed changes. Therefore, performance of the onsite emergency power system as described in the FSAR remains unchanged.
- (3) The proposed changes will not involve a significant reduction in a margin of safety, because a failure of the core spray, LPCI, or RHR Service Water system components has no effect on the availability of the diesel generators.

ATTACHMENT 2.a (continued)

b. PROPOSED CHANGE

Change the Plant Service Water system Limiting Conditions for Operation (3.5.J.2) and Surveillance Requirements (4.5.J.2) to delete the requirement for demonstrating diesel generator operability when Plant Service Water system components are inoperable.

BASIS

These changes are consistent with the philosophy of Standard Technical Specifications (including Hatch 2) which do not require additional testing of the diesel generators when other safety related systems are declared inoperable, and Generic Letter 84-15, which encourages licensees to delete this requirement to avoid excessive testing of the diesels. In addition, the proposed testing requirements for the diesel generators described in item d. below represent a more frequent routine test interval than currently exists in the Hatch 1 Technical Specifications.

GPC has reviewed the proposed changes and has determined they do not involve a significant hazards consideration for the following reasons:

- (1) The proposed change will not significantly increase the probability or consequences of an accident previously evaluated, because the new testing methods proposed should provide increased assurance of diesel generator availability, if required for accident conditions, and thus should decrease accident consequences.
- (2) The proposed changes will not create the possibility of a new or different accident from any accident previously evaluated, because no physical modifications are made to the plant in conjunction with these proposed changes. Therefore, performance of the onsite emergency power system as described in the FSAR remains unchanged.
- (3) The proposed changes will not involve a significant reduction in a margin of safety, because a failure of a division of Plant Service Water will cause the diesel generator associated with that division to be declared inoperable, but has no effect on the availability of remaining diesel generators.

ATTACHMENT 2.a (continued)

c. PROPOSED CHANGE

Change the Auxiliary Electrical Systems Surveillance Requirements (4.9.A.1, 4.9.B.1, and 4.9.B.2) by adding a requirement to verify offsite power availability and breaker alignments.

BASIS

These changes constitute additional surveillance requirements not presently included in the Hatch 1 Technical Specifications. Such requirements are included in the Hatch 2 Technical Specifications. These changes are being made to make both units' Technical Specifications consistent.

GPC has reviewed these proposed changes and has determined they do not involve a significant hazards consideration, for the following reasons:

- (1) The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated because the change adds a surveillance requirement which would enhance the availability of offsite power and thereby reduce the consequences of analyzed accidents.
- (2) The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated because no new modes of plant operation are introduced. Only a surveillance requirement is added.
- (3) The proposed change does not involve a significant reduction in the margin of safety because by adding the surveillance the availability of offsite power would be periodically verified and the margin of safety should be increased.

In addition, the change represents more conservative and restrictive Technical Specification requirements than those which are currently in place. Consequently, this change is consistent with Item (ii) of the "Examples of Amendments that are Considered Not Likely to Involve Significant Hazards Considerations" listed on page 14,870 of the April 6, 1983, issue of the Federal Register.

ATTACHMENT 2.a (continued)

d. PROPOSED CHANGE

Change the Standby AC Power Supply Surveillance Requirements (4.9.A.2.a) and the definition section (1.0) to be consistent with the diesel manufacturer's recommendations regarding routine testing of the diesel generators. Specifically, the proposed test schedule will include routine testing on either of two time intervals. The selection of the appropriate test interval for each diesel will depend on the reliability of that particular diesel generator. Also, routine testing will be performed by loading the diesels gradually and specifying a permissible load range. The "fast cold" starts which simulate accident conditions will be performed twice a year.

BASIS

It is proposed that the current monthly testing be replaced with a test schedule based on the general criteria of Regulatory Guide 1.108, with some exceptions. Regulatory Guide 1.108 relates the frequency of testing to the number of test failures on a per nuclear unit basis, i.e., failures totaled from all three diesels. The test intervals vary in four steps proceeding from 31 days, to 14 days, to 7 days, and finally as frequent as 3 days depending on the number of test failures experienced in the last 100 tests per unit.

The proposed Technical Specifications require that routine testing be conducted at intervals of 31 and 7 days based on the number of failures per diesel in the last 20 tests. The regulatory guide testing requirement of every 3 days is too frequent for routine testing. Frequent testing accelerates wear to the diesels and may degrade their reliability. The 14 day interval is an unnecessary administrative complication which we propose for deletion.

Although the proposed test schedule continues to depend upon test failure experience, it is on a per diesel basis rather than on a per nuclear unit basis. The test schedule should not be based on the concept that failures experienced on a particular diesel would adversely affect the performance of the other diesels, but, rather, should be based on individual diesel generator reliability. Therefore, failures on one diesel should not force increased testing of

ATTACHMENT 2.a (continued)

the other diesels. This change is supported by NRC Generic Letter 84-15. The proposed change in the test interval basis from the number of failures per 100 tests to the number of failures per 20 tests will provide a more sensitive indication of diesel reliability based upon the most recent test performance. This measure will avoid excessive testing due to a poor test record which has been improved by recent changes or modifications.

In addition, the definition of STAGGERED TEST BASIS, as stated in the Unit 2 Technical Specifications will be added to the definitions in the Unit 1 Technical Specifications since this term will be referenced in the body of the Technical Specifications.

The diesel manufacturer has stated that the current minimum load testing requirement of 50% to demonstrate operability should be increased to greater than or equal to 60%, and a range be specified to prevent overloading the diesels. The capability of the diesels to function in accordance with design requirements will continue to be verified per Specification 4.9.A.7. It is also proposed to delete the "fast cold" start requirement from routine testing by allowing the diesels to be gradually loaded. The purpose of routine testing should be to implement the manufacturers recommended testing and to verify starting and load handling capability. As recommended in Generic Letter 84-15, "fast cold" start testing to simulate accident conditions will be performed only every 6 months. As with routine testing, a load range is specified. A footnote has also been added to allow momentary variations outside the specified load range without invalidating the test.

GPC has reviewed these proposed changes and has determined they do not involve a significant hazards consideration for the following reasons:

- (1) The proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated because the changes will implement a diesel testing schedule more consistent with manufacturer and NRC recommendations. This should enhance diesel reliability by eliminating some unnecessary and abusive testing. In addition, a test schedule determined by individual diesel performance,

ATTACHMENT 2.a (continued)

instead of on a per unit basis, will also reduce some unnecessary testing which accelerates diesel wear. These changes should increase diesel availability and thereby reduce the consequences of analyzed accidents.

- (2) The proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated because no new modes of plant operation are introduced. Only the diesel testing schedule would change.
- (3) The proposed changes do not involve a significant reduction in a margin of safety because diesel reliability should be maintained at or above the current level and diesel wear, which would increase the number of failures, should be reduced.

ATTACHMENT 2.a (continued)

e. PROPOSED CHANGE

Change the Auxiliary Electrical Systems Surveillance Requirements (4.9.B.1) to eliminate excessive testing requirements from diesel generator surveillance when certain offsite power source components are inoperable. Specifically, the revised Technical Specifications would allow 24 hours to demonstrate the operability of the diesel generators, instead of the immediate verification of operability which is presently required.

BASIS

The proposed changes to the diesel generator testing requirements are consistent with the diesel manufacturer's recommendations to reduce excessive testing and accelerated wear and thereby enhance the reliability of the diesel generators. In lieu of verifying that all of the diesels are operable immediately after declaring an offsite source component inoperable (existing requirement), the diesels would be tested within 24 hours which is consistent with Generic Letter 84-15. This will provide assurance that no diesel starting problems exist, and will provide additional time for diesel inspection prior to a test. A 24-hour interval will also eliminate abusive quick diesel startups and stops that are presently required, and will allow the diesels to be operated for at least one hour when started per the diesel manufacturer's recommendations. Additional testing should not be required because it could lead to accelerated wear of the diesel generators. Therefore, the existing requirement which specifies diesel testing on a rotating basis every 24 hours such that all diesels are tested in three days, has been deleted.

GPC has reviewed the proposed changes and has determined they do not involve a significant hazards consideration for the following reasons:

- (1) The proposed changes will not significantly increase the probability or consequences of an accident previously evaluated, because the new testing methods proposed should enhance diesel generator availability, if required for accident conditions, and thus should decrease accident consequences.

ATTACHMENT 2.a (continued)

- (2) The proposed changes will not create the possibility of a new or different accident from any accident previously evaluated, because no physical modifications or new modes of operation occur as a result of these proposed changes. Therefore, performance of the onsite emergency power system as described in the FSAR remains unchanged.
- (3) The proposed changes will not involve a significant reduction in a margin of safety, because demonstration of diesel generator operability will be maintained, and will be conducted on a more optimum test schedule that should improve the overall performance of the onsite emergency power system.

ATTACHMENT 2.a (continued)

f. PROPOSED CHANGE

Change the Auxiliary Electrical System Surveillance Requirements (4.9.B.2) to eliminate excessive testing requirements resulting from diesel generator surveillance when one diesel generator is declared inoperable. This change will allow 24 hours to verify that the remaining diesel generators are working properly, instead of the present requirement to demonstrate operability immediately.

BASIS

The proposed changes to the testing requirements are consistent with the diesel manufacturer's recommendations to reduce excessive testing and accelerated wear of the diesel generators and thereby enhance their reliability. In lieu of verifying that the remaining diesels are operable immediately after declaring one of the diesel generators inoperable (existing requirement), the remaining diesels would be tested within 24 hours. This will provide assurance that no starting problems exist, and will provide additional time for inspection prior to a test. A 24-hour interval will also eliminate abusive quick diesel startups and stops that are necessary in order to test the two operable diesels immediately and will allow the diesels to be operated for at least one hour when started per the diesel manufacturer's recommendations. In addition, the existing requirement, which specifies diesel testing on a rotating basis every 24 hours such that both operable diesels are tested in two days, has been changed to require the diesels to be tested every 72 hours after the original test. All these changes are consistent with Generic Letter 84-15. Note that surveillance requirements have been added for offsite power sources (Reference Proposed Change c, Hatch 1 Surveillance Requirement 4.9.A.1) to verify offsite power availability and breaker alignment.

GPC has reviewed the proposed changes and has determined they do not involve a significant hazards consideration for the following reasons:

- (1) The proposed changes will not significantly increase the probability or consequences of an accident previously evaluated, because the new testing methods proposed should enhance diesel generator availability and thus should decrease accident consequences.

ATTACHMENT 2.a (continued)

- (2) The proposed changes will not create the possibility of a new or different accident from any accident previously evaluated, because no physical modifications or new modes of operation occur as a result of these proposed changes. Therefore, performance of the onsite emergency power system as described in the FSAR remains unchanged.
- (3) The proposed changes will not involve a significant reduction in a margin of safety, because demonstration of diesel generator operability will be maintained, and will be conducted on a more optimum test schedule that should improve the overall performance of the onsite emergency power system.

ATTACHMENT 2.a (continued)

g. PROPOSED CHANGE

Change the Core and Containment Systems Surveillance Requirements (4.5.G) to eliminate excessive testing requirements when one diesel generator is declared inoperable.

BASIS

The existing testing requirement is redundant to that contained in Specification 4.9.B.2 and should therefore be deleted considering the requirements proposed in item f. above. The proposed changes to the testing requirements are in compliance with the diesel manufacturer's recommendations to reduce excessive testing and accelerated wear, and thereby enhance the reliability of the diesel generators.

GPC has reviewed the proposed changes and has determined they do not involve a significant hazards consideration for the following reasons:

- (1) The proposed changes will not significantly increase the probability or consequences of an accident previously evaluated, because the new testing methods proposed should enhance diesel generator availability, if required for accident conditions, and thus should decrease accident consequences.
- (2) The proposed changes will not create the possibility of a new or different accident from any accident previously evaluated, because no physical modifications or new modes of operation occur as a result of these proposed changes. Therefore, performance of the onsite emergency power system as described in the FSAR remains unchanged.
- (3) The proposed changes will not involve a significant reduction in a margin of safety, because demonstration of diesel generator operability will be maintained, and will be conducted on an optimized test schedule that should improve the overall performance of the onsite emergency power system.

ATTACHMENT 2.b

NRC DOCKET 50-366
OPERATING LICENSE WPF-5
EDWIN I. HATCH NUCLEAR PLANT UNIT 2
10 CFR 50.92 EVALUATION

Pursuant to 10 CFR 50.92, Georgia Power has evaluated the proposed amendment and has determined that its adoption would not involve a significant hazard. The basis for this determination is as follows:

a. PROPOSED CHANGE

Change the Electrical Power Systems Limiting Condition for Operation (Action Statement 3.8.1.1) to reflect the diesel manufacturer's recommendations for eliminating excessive testing requirements with offsite and/or onsite emergency AC power sources inoperable. This change will allow 24 hours to verify that all the diesel generators are operable in the event a required offsite AC power source is declared inoperable, or to verify that the remaining two diesels are functioning properly if one onsite AC power source is declared inoperable. In addition, it is proposed to increase the allowable time to restore one of the diesel generators to operable status from two to twenty-four hours in the event that two diesel generators are inoperable.

BASIS

Hatch 2 Technical Specification 3.8.1.1, Action Statement a., requires that every diesel be tested within one hour and every eight hours thereafter in the event an emergency AC source or offsite power source is declared inoperable. To reduce excess testing and thereby enhance the reliability of the diesel generators, it is proposed that when an emergency AC source is declared inoperable, the remaining diesels be demonstrated operable within 24 hours. Diesel testing within the first 24 hours will provide assurance that no starting problems exist with the diesels and will provide additional time for inspection prior to the test. A 24-hour interval will also eliminate abusive quick diesel startups and stops that are presently required to test all diesel generators within one hour. Such testing is abusive to the diesel generators, since they should each be operated for at least one hour when started, per the diesel manufacturer's recommendations. Additional testing should not be required since it may lead to accelerated wear of the diesel generators. Therefore, the existing requirement which requires testing every eight hours has been deleted. This is consistent with Generic Letter 84-15.

ATTACHMENT 2.b (continued)

The proposed changes to Hatch 2 Technical Specification 3.8.1.1 separate existing Action Statement a. into two new Action Statements, a. and b. Also, existing Action Statements b., c., and d. are changed to Action Statements c., d., and e., respectively, and are modified to be consistent with the requirements of proposed Action Statements a. and b. In addition, proposed Action Statement e. changes the allowable time from 2 hours to 24 hours to restore one of the two inoperable diesels to operable status. A two hour Limiting Condition for Operation may result in emergency repairs which may not restore full reliability to the diesel. In addition, existing Action Statement c. allows 24 hours to restore one of two inoperable offsite power circuits (preferred source of emergency power) to operable status. The diesels should have the same LCO requirement as allowed for offsite power.

GPC has reviewed the proposed changes and has determined they do not involve a significant hazards consideration for the following reasons:

- (1) The proposed changes will not significantly increase the probability or consequences of an accident previously evaluated, because the new testing methods proposed should enhance diesel generator availability, if required for accident conditions, and thus should decrease accident consequences.
- (2) The proposed changes will not create the possibility of a new or different accident from any accident previously evaluated, because no physical modification or new modes of operation occur from these proposed changes. Therefore, performance of the onsite emergency power system as described in the FSAR remains unchanged.
- (3) The proposed changes will not involve a significant reduction in a margin of safety, because demonstration of diesel generator operability will be maintained, and will be conducted on a more optimum test schedule that should improve the overall performance of the onsite emergency power system.

ATTACHMENT 2.b (continued)

b. PROPOSED CHANGE

Change the Electrical Power Systems Surveillance Requirements (Table 4.8.1.1.2-1) to be consistent with the diesel manufacturer's recommendations regarding the schedule for routine testing of the diesel generators. Specifically the proposed test schedule will include routine testing on either of two time intervals. The selection of the appropriate test interval will depend on the reliability history of that particular diesel.

BASIS

Hatch 2 Technical Specification 4.8.1.1.2.a implements the testing schedule given in Regulatory Guide 1.108 for routine periodic surveillance testing of the diesel generators. Regulatory Guide 1.108 relates the frequency of testing to the number of test failures on a per nuclear unit basis, i.e. failures totaled from all three diesels. The test intervals vary in four steps proceeding from 31 days, to 14 days, to 7 days, and finally as frequent as 3 days depending on the number of test failures experienced.

A different test schedule is proposed using the general criteria given in Regulatory Guide 1.108 with the exception that routine testing be conducted at intervals of 31 days and 7 days based on the number of failures per diesel in the last 20 tests. The diesel manufacturer has notified GPC that testing every three days on a routine basis is too frequent. Frequent testing accelerates wear on the diesels, and will not enhance their reliability. The 14 day interval was deleted for overall simplification of the test schedule.

The proposed test schedule continues to depend upon test failure experience but on a per diesel basis rather than on a per nuclear unit basis. The test schedule should not be based on the concept that failures experienced on a particular diesel would adversely affect the performance of the other diesels, but, rather, should be based on individual diesel generator reliability. Therefore, the failure of one diesel should not force increased testing of the other diesels. This is consistent with Generic Letter 84-15. The proposed change in the test interval basis from the number of failures per 100 tests to the number of failures per 20 tests will provide a more sensitive indication of diesel reliability based upon the most recent test performances. This measure will avoid excessive testing due to a poor test record which has been improved by recent changes or modifications.

ATTACHMENT 2.b (continued)

GPC has reviewed the proposed changes and has determined they do not involve a significant hazards consideration for the following reasons:

- (1) The proposed changes will not significantly increase the probability or consequences of an accident previously evaluated, because the changes will implement a diesel testing schedule more consistent with manufacturer and NRC recommendations. A test schedule determined by individual diesel performance, instead of on a per unit basis, will reduce some unnecessary testing which accelerates diesel wear. These changes should increase diesel availability and thereby reduce the consequences of analyzed accidents.
- (2) The proposed changes will not create the possibility of a new or different accident from any accident previously evaluated, because no physical modifications or new modes of operation are involved in conjunction with these proposed changes. Therefore, performance of the onsite emergency power system as described in the FSAR remains unchanged.
- (3) The proposed changes will not involve a significant reduction in a margin of safety, because demonstration of diesel generator operability will be maintained, and will be conducted on an optimized test schedule that should improve the overall performance of the onsite emergency power system.

ATTACHMENT 2.b (continued)

c. PROPOSED CHANGE

Change the Electrical Power Systems Surveillance Requirements (Combine 4.8.1.1.2.a.4 and 4.8.1.1.2.a.5 to create proposed Specifications 4.8.1.1.2.a.4 and 4.8.1.1.2.b) to eliminate excessive test requirements when demonstrating diesel operability. This change will allow gradual loading of the diesels to within a specified load range during routine testing. The requirement to simulate accident conditions with "fast cold" starts of the diesel generators will be performed two times per year.

BASIS

The proposed changes to the test requirements are consistent with the diesel manufacturer's recommendations to reduce excessive testing and accelerated wear on the diesel generators, and thereby enhance their reliability.

Requiring the diesels to reach synchronous speed in less than or equal to 12 seconds (existing Specification 4.8.1.1.2.a.4) results in abusive quick starts of the diesels when additional surveillance is required by the Action Statements for Specification 3.8.1.1. Requiring the diesels to accept rated loads in less than or equal to 120 seconds (existing Specification 4.8.1.1.2.a.5) also represents a strenuous routine test. The purpose of routine testing should be to implement manufacturer's recommended testing and to verify starting and load handling capability, rather than to simulate accident conditions. Therefore, it is proposed to delete the requirement for "fast cold" starts from routine testing by allowing the diesel to be gradually loaded (proposed Specification 4.8.1.1.2.a.4). As recommended in Generic Letter 84-15, the "fast cold" start testing to simulate accident conditions would be performed only every 6 months (proposed Specification 4.8.1.1.2.b).

The diesel manufacturer has recommended that the diesels be loaded to a minimum of 60% of rated loads during regular testing. In order to preclude the possibility of overloading the diesels during testing, it was also recommended that a load range be specified. Therefore, load ranges have been specified for the routine and 6 month surveillance testing. A footnote has also been added to allow momentary variations outside the specified range without invalidating the test.

ATTACHMENT 2.b (continued)

GPC has reviewed the proposed changes and has determined they do not involve a significant hazards consideration for the following reasons:

- (1) The proposed changes will not significantly increase the probability or consequences of an accident previously evaluated, because the new testing methods proposed should provide increased assurance of diesel generator availability, if required for accident conditions, and thus should decrease accident consequences.
- (2) The proposed changes will not create the possibility of a new or different accident from any accident previously evaluated, because no physical modifications or new modes of operation occur as a result of these proposed changes. Therefore, performance of the onsite emergency power system as described in the FSAR remains unchanged.
- (3) The proposed changes will not involve a significant reduction in a margin of safety, because demonstration of diesel generator operability will be maintained, and will be conducted in an optimized manner that should improve the overall performance of the onsite emergency power system.

ATTACHMENT 2.b (continued)

d. PROPOSED CHANGE

Change the Electrical Power Systems Surveillance Requirements (4.8.1.1.2.c.9) to comply with the diesel manufacturer's recommendations regarding overload testing of the diesel generators during the 24-hour 18 month surveillance test. The overload testing of the diesels will be performed near the end of the 24-hour test instead of at the beginning to allow for engine preconditioning.

BASIS

Overload testing of the diesel generators does not contribute to the dependability or the longevity of the equipment, but instead accelerates wear and thereby reduces diesel generator reliability. It may also impede seating or reseating of engine power parts, whether they are new or have been subjected to prior distress. The 24-hour test of the diesel generators currently requires each diesel to be placed in an overload condition during the first two hours and then reduced to its rated load the following 22 hours. This represents an abusive test requirement for the diesels. It is proposed, per the diesel manufacturer's recommendation, that the 24-hour test be modified to require rated load testing of the diesels during the first 22 hours to allow engine preconditioning, and that the diesels then be subjected to overload operation during the last two hours of the test. Load ranges have also been added to preclude overloading the diesels.

GPC has reviewed the proposed changes and has determined they do not involve a significant hazards consideration for the following reasons:

- (1) The proposed changes will not significantly increase the probability or consequences of an accident previously evaluated, because the new testing methods proposed should provide increased assurance of diesel generator availability, if required for accident conditions, and thus should decrease accident consequences.
- (2) The proposed changes will not create the possibility of a new or different accident from any accident previously evaluated, because no physical modifications or new modes of operation are involved in conjunction with these proposed changes. Therefore, performance of the onsite emergency power system as described in the FSAR remains unchanged.

ATTACHMENT 2.b (continued)

- (3) The proposed changes will not involve a significant reduction in a margin of safety, because demonstration of diesel generator operability will be maintained, and will be conducted in an optimized manner that should improve the overall performance of the onsite emergency power system.

ATTACHMENT 2.b (continued)

e. PROPOSED CHANGE

Change the Electrical Power Systems Surveillance Requirements (4.8.1.1.2.c.14) to reduce the frequency of verifying the capability and operability of the diesel air start receivers.

BASIS

Currently, this 18-month surveillance requirement requires five successive starts of the diesels to verify the capability of the air start receivers. It is proposed (Specification 4.8.1.1.2.d) per the diesel manufacturer's recommendation that this test be performed only once per five years since the primary reason is to demonstrate adequate equipment sizing of the air start system, which is not expected to change. Reverification of the performance of the air start receivers will be maintained, but on a reduced time frequency (every five years). As a result, the diesels will be subjected to a significantly reduced number of abusive tests which require quick engine starts and stops.

GPC has reviewed the proposed changes and has determined they do not involve a significant hazards consideration for the following reasons:

- (1) The proposed changes will not significantly increase the probability or consequences of an accident previously evaluated, because the new testing methods proposed should provide increased assurance of diesel generator availability, if required for accident conditions, and thus should decrease accident consequences.
- (2) The proposed changes will not create the possibility of a new or different accident from any accident previously evaluated, because no physical modifications or new modes of operation are involved in conjunction with these proposed changes. Therefore, performance of the onsite emergency power system as described in the FSAR remains unchanged.
- (3) The proposed changes will not involve a significant reduction in a margin of safety, because demonstration of diesel generator operability will be maintained, and will be conducted on a more optimum test schedule that should improve the overall performance of the onsite emergency power system.

ATTACHMENT 3.a

NRC DOCKET 50-321
OPERATING LICENSE DPR-57
EDWIN I. HATCH NUCLEAR PLANT - UNIT 1
PROPOSED CHANGES TO TECHNICAL SPECIFICATIONS

The proposed changes to the Technical Specifications (Appendix A to Operating License DPR-57) would be incorporated as follows:

<u>REMOVE PAGE</u>	<u>INSERT PAGE</u>
1.0-10	1.0-10
3.5-2	3.5-2
3.5-3	3.5-3
3.5-4	3.5-4
3.5-6	3.5-6
3.5-10	3.5-10
—	3.5-10a
3.5-12	3.5-12
3.5-13	3.5-13
3.5-14	3.5-14
3.5-15	3.5-15
3.9-1	3.9-1
3.9-2	3.9-2
—	3.9-2a
3.9-5	3.9-5
—	3.9-6b