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July 10, 1992

Mr. S. D. Ebneter
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, N.W., Suite 2900
Atlanta, Georgia 30323

PLANT HATCH - UNIT 1
NRC DOCKET 50-321
OPERATING LICENSE DPR-57
REQUEST FOR REGIONAL WAIVER OF COMPLIANCE
EXTENSION OF DIESEL GENERATOR LCO

Dear Mr. Ebneter:

Georgia Power Company (GPC) hereby requests a temporary waiver of compliance from a portion of the requirements of the Plant Hatch Unit 1 Technical Specifications (TS), Appendix A to Operating License DPR-57.

During the upcoming refueling outage for Plant Hatch Unit 2, currently scheduled to begin in September of 1992, preventative maintenance and modifications to the 1B emergency diesel generator (DG) are planned which are expected to take approximately 14 days (including 2 days for contingencies). During this time, Plant Hatch Unit 1 is expected to be operating at full power. The anticipated 14 day outage for DG 1B exceeds the allowable outage time (AOT) of 7 days specified in the Unit 1 TS. GPC is therefore requesting the NRC to temporarily extend this AOT to 14 days for the one time only performance of this work on the 1B DG.

Enclosure 1 provides a detailed description of the applicable TS, compensatory actions, work scope and schedule, and safety significance of the proposed temporary waiver of compliance.

Enclosure 2 details the basis for our determination the proposed waiver of compliance does not involve a significant hazards consideration.

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Georgia Power

Should you have any questions, please advise.

Sincerely,

J. T. Beckham, Jr.

MCM/cr

cc: Georgia Power Company
Mr. H. L. Sumner, General Manager - Nuclear Plant
NORMS

U.S. Nuclear Regulatory Commission, Washington, D.C.
Mr. K. Jabbour, Licensing Project Manager - Hatch
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Mr. L. D. Wert, Senior Resident Inspector - Hatch

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ENCLOSURE 1

PLANT HATCH - UNIT 1
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EXTENSION OF DIESEL GENERATOR LCO

BASIS FOR WAIVER REQUEST

Applicable Technical Specifications

During the Fall 1992 refueling outage for Plant Hatch Unit 2, GPC plans to perform preventative maintenance and modifications to emergency diesel generator (DG) 1B for the purpose of increasing its reliability and, in the future, upgrading its rated capacity. DG 1B serves as the "swing" diesel in that it is capable of supplying emergency power to either Unit 1 or 2. During the planned work, Hatch Unit 1 is expected to be in power operation. Per Unit 1 Specification 3.9.B.2, one DG may be inoperable for up to 7 days whenever the reactor is in the Start & Hot Standby or Run Mode and the reactor water temperature is greater than 212°F. The planned work on DG 1B is expected to take approximately 12 days to complete. Therefore, in order to account for possible contingencies, GPC is requesting the allowable outage time of 7 days be extended to 14 days for performance of this maintenance and modification work. This extension will be used only once and only for this purpose.

Compensatory Actions

During the time DG 1B is inoperable, all of the requirements specified in the Unit 1 TS for inoperability of one DG will be satisfied. These include increased electrical surveillance requirements as well as increased requirements for operability of other electrical, ECCS and containment cooling equipment. In addition to these requirements, the following compensatory actions will be taken during the time DG 1B is inoperable:

* Non-essential work in the Plant Hatch Unit 1 switchyard will be limited.

* The Georgia Power system operator in Atlanta will be informed of the situation and will be requested to take all possible actions to maintain the offsite power supply to Plant Hatch.

* The Georgia Power system operator will be requested to limit work on the system which could impact Plant Hatch.

* Per the TS increased surveillance requirements, the pressure in the diesel air start receivers must be verified at least once per 72 hours. This pressure will be verified at least once per 8 hours for the two remaining Unit 1 DGs.

ENCLOSURE 1 (Continued)

EXTENSION OF DIESEL GENERATOR LCO

BASIS FOR WAIVER REQUEST

The frequency of actual operability testing of the remaining Unit 1 DGs will not be increased more than is already required by the Unit 1 TS (once per 72 hours) due to the excessive wear this would cause on these DGs. Additionally, operability testing of DGs requires short periods of inoperability at the beginning and end of each test.

Work Scope and Schedule

The work planned for the 1B DG involves replacement of internal components including cylinder liners, o-rings and pistons. The o-ring replacement was recommended by the manufacturer due to aging of the o-rings and the increased reliability of a new o-ring material. Since the o-rings must be installed in the cylinder liners by the manufacturer, replacement of the o-rings requires replacement of the cylinder liners.

GPC is also considering a future modification to DG 1B to increase its electrical capacity. This modification involves replacement of external and internal components including the pistons. Since the engine will already be disassembled for the o-ring replacement, GPC plans to replace the pistons at this time. Then, if the decision is made to complete the power upgrade modification, it can be done without disassembling the engine. The work external to the engine may take greater than 7 days. If another waiver is necessary for this work, a second request will be submitted when all of the details are finalized. This work is also expected to be performed on the other two Unit 1 DGs at some time in the future. Since DG 1B is the only DG capable of serving both units, performance of this work on the other two Unit 1 DGs will have no regulatory impact.

Following is a summary schedule showing the major tasks involved with performance of this maintenance and modification work. This schedule assumes work continuing for 24 hours per day.

*	Tag out DG 1B making it inoperable	1 day
*	Perform maintenance/modification work	7 days
*	Restore tagout of DG 1B	1 day
*	Perform required surveillance testing	3 days
*	Contingency time	2 days
	Total	14 days

EXTENSION OF DIESEL GENERATOR LCO

BASIS FOR WAIVER REQUEST

Safety Significance

The purpose of the DGs is to provide AC power to emergency equipment in the event of a loss of offsite power (LOSP). Analyses were performed for loss of coolant accidents (LOCAs) with various size line breaks in conjunction with various postulated single active failures (including loss of a diesel generator) and an LOSP. The limiting accident was found to be a recirculation suction line break with the failure of a diesel battery. Loss of a diesel battery results in loss of the associated DG as well as loss of control power to the associated 4160V emergency bus. Any event involving the inoperability of DG 1B as the single active failure is bounded by this limiting accident.

The Southern Electric System is highly reliable and stable. State-of-the-art computer technology is employed in the design and operation of the system. Four 230 kV lines and four 500 kV lines supply the Plant Hatch switchyard with offsite power. These factors contribute to an extremely low probability of an LOSP occurring at Plant Hatch. Probabilistic risk assessment performed as part of the Individual Plant Examination (IPE) program has resulted in quantitative probabilities of occurrence being assigned to certain events, some involving an LOSP. The frequency of an LOSP by itself was determined to be 0.025 events per year. This would convert to a frequency of 4.8 E-4 for the one week extension of the subject DG LCO. Analysis also indicates Unit 1 could be successfully brought to Cold Shutdown under LOSP conditions with only one operable DG. Therefore, in the unlikely event an LOSP did occur during the DG 1B outage, Unit 1 could be brought to Cold Shutdown even with the single failure of one of the two operable DGs.

If DG 1B is out of service, and all other DGs and low pressure ECCS systems are fully operable, the worst subsequent single failure would be the failure of either DG 1A or 1C, or their associated battery systems. Following is a listing of conceivable worst case assumptions and the postulated results of a design basis accident.

* Prior to the event, DG 1B is out of service and all other DGs, offsite power supplies and ECCSs are fully operable.

* A DBA LOCA/LOSP occurs.

* Either 1A or 1C DG or battery fails (single failure).

* The one LPCI pump powered by the operating DG pumps into the broken recirculation line.

ENCLOSURE 1 (Continued)

EXTENSION OF DIESEL GENERATOR LCO

BASIS FOR WAIVER REQUEST

The resultant operable low pressure ECCS pumps are one core spray pump and one LPCI pump for a suction line break, or just one core spray pump for a discharge line break. In 1986, General Electric performed a sensitivity study for GPC using SAFER/GESTR licensing methodology, with Appendix K inputs, to analyze the results of a recirculation line break with various single failures. One of the analyses assumed a failure of a DG battery with one LPCI pump already out of service. These assumptions result in the same number and type of operable ECCS pumps as the worst case described above. The results of the analysis showed both of these accidents yielded peak clad temperatures less than 2200°F. Therefore, with DG 1B out of service, the worst credible single failure in conjunction with a design basis LOCA/LOSP will yield acceptable results.

Other analyses performed as part of the IPE program quantified frequencies for events resulting in core damage and determined the contributions to the overall core damage frequency resulting from the failures of various components. Removing DG 1B from service for the one week LCO extension increases the Unit 1 overall annual core damage frequency for 1992 by less than 8 E-7.

The DGs at Plant Hatch are highly reliable. In the unlikely event an LOSP were to occur at Plant Hatch, there is a very high probability that both the 1A and 1C DGs would automatically start and tie to their respective 4160V emergency buses as designed. Last year, Plant Hatch developed a DG reliability program which implemented the requirements of NUMARC Initiative 5A along with Appendix D of NUMARC 87-00 Rev. 1. The Plant Hatch DG target reliability is .95. According to INPO and EPRI data, DG reliability for the industry has been greater than .98 since 1983. Using the INPO and EPRI reliability tracking criteria, the reliability of DGs 1A and 1C has been 100% since the inception of the tracking program (September 1989).

The proposed replacement of DG 1B internal components with new components made of superior material will increase the reliability of the engine and will result in an increase in safety in the future.

ENCLOSURE 2

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NO SIGNIFICANT HAZARDS EVALUATION

Georgia Power Company has evaluated this request for a temporary waiver of compliance and determined its adoption would not involve a significant hazards consideration, nor would it cause irreversible environmental consequences. The bases for this determination are detailed below.

Basis for Proposed No Significant Hazards Consideration Determination:

1. The proposed waiver does not involve a significant increase in the probability or consequences of an accident previously evaluated.

   The IPE analysis discussed above, shows an extremely small probability of occurrence for any accident involving an LOSP during the proposed seven day extended AOT for the 1B DG. In addition, the reliability of the Hatch DGs has been shown to be very high. The combination of these two factors results in the conclusion that increasing the AOT by seven days for the 1B DG as a one time change will not cause a significant increase in the consequences of an accident previously evaluated. The operability of the 1B DG has no impact on the probability of occurrence of any type of accident. Therefore, this change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. The proposed waiver does not create the possibility of a new or different kind of accident from any accident previously evaluated.

   Extending the AOT for the 1B DG does not create any new modes of operation. Operation of Unit 1 with one inoperable DG has already been considered as evidenced by the existence of the 7 day AOT contained in the Unit 1 TS. This change will extend this AOT to 14 days for one time only. Because of the extremely small probability of occurrence for any accident involving an LOSP during the proposed seven day extended AOT and the high reliability of the Hatch DGs, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. The proposed waiver does not involve a significant reduction in the margin of safety.

   The purpose of the DGs is to provide AC power to emergency equipment in the event of a loss of offsite power (LOSP). Analyses were performed for loss

of coolant accidents (LOCAs) with various size line breaks in conjunction with various postulated single active failures (including loss of a diesel generator) and an LOSP. The limiting accident was found to be a recirculation suction line break with the failure of a diesel battery. Loss of a diesel battery results in loss of the associated DG as well as loss of control power to the associated 4160V emergency bus. Any event involving the inoperability of DG 1B as the single active failure is bounded by this limiting accident.

The probability of an LOSP by itself was determined to be 0.02 events per year for Plant Hatch. This would convert to a probability of 3.8 E-4 for the one week extension of the subject DG LCO. Analysis also indicates Unit 1 could be successfully brought to Cold Shutdown under LOSP conditions with only one operable DG. Therefore, in the unlikely event an LOSP did occur during the DG 1B outage, Unit 1 could be brought to Cold Shutdown even with the single failure of one of the two operable DGs. Also, as explained in Enclosure 1, with DG 1B out of service, the worst credible single failure in conjunction with a design basis LOCA/LOSP would result in PCTs less than 2200°F.

Other analyses performed as part of the IPE program quantified frequencies for events resulting in core damage and determined the contributions to the overall core damage frequency resulting from the failures of various components. Removing DG 1B from service for the one week LCO extension increases the Unit 1 overall annual core damage frequency for 1992 by less than 8 E-7.

As can be seen from the IPE evaluation, the combination of low accident probabilities, low LOSP probabilities and high DG reliabilities, results in a very low probability of core damage due to DG failure, and thus a very small increase in core damage frequency due to the one-time extension of the AOT for DG 1B. Additionally, even if a DBA LOCA occurred and assuming the worst single failure in addition to the 1B DG being out of service, the calculated PCTs would be less than 2200°F. Therefore, the proposed waiver does not involve a significant reduction in the margin of safety.

4. The proposed waiver does not involve irreversible environmental consequences.

The above discussion details the bases for the determination that the proposed waiver would not involve a significant hazards consideration. This supports the contention that the proposed waiver would not result in any radioactive releases which exceed the limits of 10 CFR 100.

ENCLOSURE 2

EXTENSION OF DIESEL GENERATOR LCO

NO SIGNIFICANT HAZARDS EVALUATION

The only other potential environmental impact involved with the DGs is the engine emissions. The extension of the DG LCO by 7 days will not affect the amount of pollutants produced by the engine. However, by allowing Hatch Unit 1 to continue to operate beyond the 7 day AOT, the need for increased fossil fuel generation and the associated polluting emissions will be obviated. In addition, if the decision is made to complete the power upgrade modification, one of the results should be a reduction in emissions for the DG 1B engine.