Enclosure 1

Edwin I. Hatch Nuclear Plant
Request to Revise Technical Specifications to
Revise Unit 1 Diesel Generator Shutdown Requirement

Revised Description and Bases for Requested Change

Because of plant conditions that will be encountered during the upcoming Plant Hatch Fall 1994 Unit 1 maintenance and refueling outage, Georgia Power Company (GPC) requests a change to Unit 1 Technical Specification 3.9.C, which requires two diesel generators (DGs) to be operable when the reactor is shut down and fuel is in the vessel. Specific plant conditions on days 2 through 9 of the scheduled outage are expected to be as follows:

1. By day 2 of the outage, the nonsafety-related decay heat removal (DHR) system (G71) will be in service providing cooling to the Unit 1 spent fuel pool. Both RHR loops will be available for shutdown cooling with loop 'B' in service and loop 'A' in standby.

2. On day 3, DG 1A will be removed from service for normal maintenance and will remain out of service until approximately day 10 of the outage.

3. On day 5, the reactor pressure vessel (RPV) cavity will be filled and the cavity to fuel pool gates removed in preparation for fuel unload. RHR loop 'B' will be taken out of shutdown cooling, but will remain in standby with the piping filled and vented with both 'B' and 'D' pumps operable for shutdown cooling. The DHR system will provide decay heat removal for both the fuel pool and the reactor. Loop 'A' will be removed from service for local leak rate testing (LLRT), which will require approximately 44 hours.

4. Upon completion of loop 'A' LLRT (approximately day 7), loop 'A' will be filled, vented and returned to standby for shutdown cooling. Loop 'B' will then be removed from service for similar testing. On approximately day 9, all fuel will be offloaded from the reactor and both RHR loops removed from service for maintenance activities.

For the above plant conditions, the Unit 1 Technical Specifications requirements for shutdown cooling and DGs are as follows:

1. Specification 3.5.B.1.b states that two RHR pumps must be available for shutdown cooling. On outage days 5 and 6, RHR loop 'B' will fulfill this requirement; while on days 7 and 8, RHR loop 'A' will fulfill the requirement.

2. Specification 3.9.C.3 states that two DGs must be operable when a core or containment cooling system is required to be operable. On outage days 7 and 8, DGs 1B and 1C will be operable, and DG 1A will be out of service. With two operable diesels, Specification 3.9.C.3 is seemingly met. However, the requirement implies that the operable diesels must be capable of supplying the required core and/or containment cooling systems. While RHR loop 'A' is serving as the required shutdown cooling system, DG 1A, which provides emergency power to RHR pump 1A, is out of service. Therefore, in this configuration, Unit 1 would be out of compliance with the intent of Specification 3.9.C.3.

Georgia Power Company is proposing a one-time change to the Unit 1 Technical Specifications to allow shutdown operations with only one of the two required DGs, per Specification 3.9.C, aligned to its corresponding core or containment cooling system. This will only be in effect during the period when the cavity is flooded, the fuel pool gates are removed, and RHR LLRTs and the 1A DG maintenance are occurring simultaneously.

This change is anticipated to be needed for approximately 2 or 3 days, depending on how the LLRT work progresses.

Justification for Change

Georgia Power Company is proposing a change to Unit 1 Technical Specification 3.9.C.3. GPC believes the proposed changes are technically acceptable and will not jeopardize plant safety based on the following discussion:

When RHR loop 'A' is serving as the required shutdown cooling system, DG 1B will be operable, thus emergency power is available to RHR pump 1C. With DG 1A out of service, emergency power to RHR pump 1A is not available. However, the DHR system, which is independent of the existing RHR shutdown cooling and fuel pool cooling systems, will be available and in service. In fact, the DHR system will be capable of providing decay heat removal from the fuel pool and reactor cavity as early as day 3 of the refueling outage.

The DHR system is designed with a primary loop and a secondary loop. The primary loop consists of two pumps, two heat exchangers, and a strainer. These components are installed one elevation below the refueling floor (el 203 ft) in the reactor building. On the refueling floor, pipe spools allow the system to be aligned to either the Unit 1 or Unit 2 spent fuel pool, with suction from and discharge to the pools. The secondary loop consists of two cooling towers and two pumps located on the railroad airlock roof. Power is supplied from the Baxley, Georgia, substation. Furthermore, the DHR system has a dedicated nonsafety-related diesel to supply backup power if necessary.

During the Spring 1994 Unit 2 outage, the DHR system successfully demonstrated the ability to simultaneously provide adequate decay heat removal for the spent fuel pool and the reactor, with no other decay heat removal system, other than reactor water cleanup, in service. (Reference NRC Inspection Report 94-08 dated May 12, 1994.)

Under the proposed configuration, a loss of offsite power (LOSP), coupled with a failure of DG '1B', will render the RHR shutdown cooling system inoperable. However, the DHR system will remain available, with power being supplied from either its normal supply or the backup diesel. Under the configuration required by the Technical Specifications, an LOSP, coupled with one diesel failure, will not render shutdown cooling unavailable. However, closure of one RHR shutdown cooling suction valve will render the RHR shutdown cooling system unavailable. If DHR were not available, a complete loss of RHR shutdown cooling would occur. If the decay heat load was high enough, this would require entry into the loss of shutdown cooling abnormal operating procedure. This involves circulating water through the safety relief valves to the suppression pool, placing RHR in suppression pool cooling and making up water to the RPV via the Core Spray system.

Since the DHR system is completely independent of RHR shutdown cooling, the proposed decay heat removal scheme for the Unit 1 outage is neither susceptible to the single failure of a DG during an LOSP, nor to the single failure of a shutdown cooling suction path. Therefore, GPC believes the proposed decay heat removal alignment for days 7 and 8 of the upcoming Unit 1 refueling outage does not represent a reduction in safety and will provide more effective redundancy and in-depth defense than will strict adherence to the current Technical Specification 3.9.C.3 without the DHR system in service. Furthermore, the current Unit 2 Technical Specifications allow shutdown operations with the proposed

shutdown cooling and DG maintenance configuration scheduled for the Unit 1 outage without reliance on the DHR system. (Reference Technical Specifications 3.8.1.2 and 3.9.12.) In addition, Unit 1 Improved Technical Specifications 3.8.2 and 3.9.7, submitted in February 1994, permit operations in the manner proposed in this submittal. Note that operation in the proposed manner requires deliberate entry into LCO 3.9.7, ACTION A. However, this is implicitly allowed by the new Specifications.

The request is important to the outage schedule because GPC plans to replace one RHR testable check valve, 1E11-F050A or B, depending on the results of the LLRTs. Replacement will take approximately 13 days to complete. However, due to the complexities and difficulties associated with working on this valve, replacement may require additional time. It is, therefore, important to begin the LLRTs as early as possible in the outage to avoid critical path impact. The actual valve replacement will be performed after fuel has been offloaded and before the core is reloaded. With no fuel in the vessel, the RHR system is not required to be operable. Although difficult to quantify a cost savings, GPC estimates that each additional outage day will cost approximately $128,000 in lost generation alone.