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24/425-OLA-3 A-171R 9/6/95

APPROVED ONE NO. 2194-014
EXPIRES 4/98

U.S. NUCLEAR REGULATORY COMMISSION
LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

REGULATED UNDER PER RESPONSE TO COMPLY WITH THE
INFORMATION COLLECTION ACT, 5 U.S.C. 552A. FORMER
COMMITTEE REGULATORY BUREAU RELATES TO THE RECORDS
AND REPORTS MANAGEMENT BRANCH (R-400), U.S. NUCLEAR
REGULATORY COMMISSION, WASHINGTON, DC 20545, AND TO
THE PAPERWORK REDUCTION PROJECT (1980-014) OFFICE
OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

DOCKETED
USNRC

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (3)		PAGE (3)	
		YEAR	CLASS	NO.	OF
VEGP - UNIT 1	951 OCT 20 P3:09	0810004	24	910	0196-012016 OF 018

TEXT OF THIS REPORT IS REQUIRED, AND ADDITIONAL NRC FORM 2054 IS (2)

GFC EXHIBIT II-171-R
WEBB EX. C.18

During the subsequent test run of the DG on 3-30-90, one of the switches (TS-19111) tripped and would not reset. This appeared to be an intermittent failure because it subsequently mechanically reset. This switch and the leaking switch (TS-19112) were replaced with new switches. All subsequent testing was conducted with no additional problems.

A test of the jacket water system temperature transient during engine starts was conducted. The purpose of this test was to determine the actual jacket water temperature at the switch locations with the engine in a normal standby lineup, and then followed by a series of starts without air rolling the engine to replicate the starts of 3-20-90. The test showed that jacket water temperature at the switch location decreased from a standby temperature of 163 degrees F to approximately 156 degrees F and remained steady.

Numerous sensor calibrations (including jacket water temperatures), special pneumatic leak testing, and multiple engine starts and runs were performed under various conditions. In addition, the control systems of both engines were subjected to a comprehensive test program. After completion of the control logic test sequence, an undervoltage test was performed. ~~including the undervoltage tests, DG1A has been successfully started 15 times and DG1B has been successfully started 14 times as of 5-14-90, with no start failures.~~

Based on the above facts, it is concluded that the jacket water high temperature switches were the most probable cause of both trips on 3-20-90.

E. ANALYSIS OF EVENT

The loss of offsite power to Class 1E bus 1BA03 and the failure of DG1A to start and operate successfully, coupled with DG1B and RAT 1B being out of service for maintenance, resulted in Unit 1 being without AC power to both Class 1E busses. With both Class 1E busses deenergized, the RHR System could not perform its required safety function. Based on a noted rate of rise in the RCS temperature of 46 degrees F in 36 minutes, the RCS water would not have been expected to begin boiling until approximately 1 hour and 36 minutes after the beginning of the event.

Restoration of RHR and closure of the containment equipment hatch were completed well within the estimated 1 hour and 36 minutes for the projected onset of boiling in the RCS. A review of information obtained from the Process and Effluent Radiation Monitoring System (PERMS) and grab sample analysis indicated all normal values. As a result of this event, no increase in radioactive releases to either the containment or the environment occurred.

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From 3-20-90 to 6-11-90, there were 14 valid tests of DG1 with no valid failures. During this same time period, there were 11 valid tests of DG1B with one valid failure, which occurred following installation of new jacket water temperature switches. A report of this failure will be submitted as Technical Specification Special Report #T-90-4.

NUCLEAR REGULATORY COMMISSION

Docket No. 50-424/425-OLA-3 EXHIBIT NO. GPC II-171R

In the matter of Georgia Power Co. et al., Vogtle Units 1 & 2

Staff Applicant Intervenor Other

Identified Received Rejected Reporter SD

Date 01-06-95 Witness WCB