

16931

5-1

DOCKETED  
USNRC

TITLE

LER 1-90-6 Rev. 1 '95 JUL 27 P4:47

OFFICE OF SECRETARY  
DOCKETING & SERVICE  
BRANCH

Mgr. Engr. Supt. / Date

Mgr. HP/Chem. / Date

*[Signature]* 15/1/90  
Mgr. Tech. Supt. / Date

Mgr. Maint. / Date

Mgr. Admin. / Date

Mgr. Ops. / Date

Mgr. Trng. / Date

Mgr. Out./Plan / Date

Asst. General Mgr. - Support / Date

Asst. General Mgr. - Operations / Date

*[Signature]*  
PRB

5066  
Mtg. No.

Please review, sign where appropriate and return to Tom Webb by \_\_\_\_\_.  
If there are any questions, please call Tom at extension 3105.

*[Handwritten initials]*

OK  
*[Signature]*  
5/14/90

NUCLEAR REGULATORY COMMISSION  
Docket No. 50-424/425-OLA-3 EXHIBIT NO. Staff II-1  
In the matter of Georgia Power Co. et al., Vogtle Units 1 & 2  
 Staff  Applicant  Intervenor  Other  
 Identified  Received  Rejected Reporter KHW  
Date 7/20/95 Witness Malbaugh

9508100348 950720  
PDR ADOCK 05000424  
G PDR

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (F-630) U.S. NUCLEAR REGULATORY COMMISSION WASHINGTON, DC 20540 AND TO THE PAPERWORK REDUCTION PROJECT (3180-0104) OFFICE OF MANAGEMENT AND BUDGET WASHINGTON, DC 20503

UTILITY NAME (1):

BUCKET NUMBER (2):

LER NUMBER (3):

PAGE (3):

VEGP - UNIT 1

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TEXT (if more space is required, use additional NRC Form 2884-2 (17))

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,* ~~After the 3-20-90 event, the control systems of both engines have been subjected to a comprehensive test program. Subsequent to this test program, DG1A and DG1B have been started at least 18 times each and no failures or problems have occurred during any of these starts. In addition, an undervoltage start test without air roll was conducted on 4-6-90 and DG1A started and loaded properly. 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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GEORGIA POWER CO. ET AL.  
DOCKET NO:  
50-424/425-OLA-3

'95 JUL 27 A9:47

OFFICE OF SECRETARY  
DOCKETING & SERVICE  
BRANCH

MAY 17, 1995

STIPULATED EXHIBITS PROVIDED BY INTERVENOR ON 07-17-95

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INT II-24	4-9-90 COA RESPONSE	4
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INT 46	2/9/94 MEMO Fr. MARLEY	50
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INT II-62	06-29-90 LER, W/COV LTR	11
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INT II-77	LOGGING FORMS	7
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INT II-95	8-23-90 POSITION PAPERS	43
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INT II-6	WEATHER DATA	STIPULATED 5-17-95
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INT II-30	TAPE 89 EXCERPT	STIPULATED 5-17-95
/INT II-32 *	TAPE 187	2
/INT II-34	NUREG 1410	20
INT II-35	REQUESTED/PERFORMED	RCVD 06-01-95
INT II-39	12-11-93 OI REPORT	RETAINED BY INTRVNR
INT II-45	TAPE 27 EXCERPT	STIPULATED 05-17-95
/INT II-50 *	TAPE 11 EXCERPT	3
/INT II-53 *	TAPE 184 EXCERPT	3
/INT II-58	INTERR. RESPONSE	9
INT II-63	TAPE 157	STIPULATED 05-17-95
/INT II-68 *	TAPE 184 EXCERPT	11
INT II-71	BOCKHOLD 04-09-95	STIPULATED 05-17-95
/INT II-72	NRC RESPONSE	25
/INT II-76	TAPE 259 TRANS.	2
/INT II-76B <u>OFFERED BY STAFF</u>	TAPE 259 TRANS.	2
/INT II-85	TAPE 24 SIDE B	1
/INT II-92 *	TAPE 31	3
/INT II-110A *	TAPE 34	3
/GPC II-94 (5 COPIES)	LETTER, MOSBAUGH	11 (BOUND)
/GPC II-95 (6 COPIES)	AFFIDAVIT, MOSBAUGH	4

\* REPLACE PREVIOUS VERSION STIPULATED 05-17-95

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JULY 7, 1995

<u>EXHIBIT NO.</u>	<u>DESCRIPTION</u>	<u>NO. OF PAGES</u>
INT II-164	LETTER 05-30-91	BOUND
INT II-165	2.206 PETITION RESP.	BOUND
INT II-166	FAX OF MOSBAUGH AFFDVT	BOUND
/GPC II-96	INTERVENOR'S RESPONSE	48
/GPC II-97	MOSBAUGH STUDENT RECORD	4
/GPC II-98A	9.3.1 OF FSAR	18
/GPC II-98B	9.5.6 OF FSAR	8
/GPC II-99	STANDARD REVIEW PLAN	7 (BOUND)
/GPC II-100	DEMONSTRATIVE AID #4	12

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<u>EXHIBIT NO.</u>	<u>DESCRIPTION</u>	<u>NO. OF PAGES</u>
/GPC II-101	PROPOSED CHANGES TO DEMONSTRATIVE AID #4	12

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<u>EXHIBIT NO.</u>	<u>DESCRIPTION</u>	<u>NO. OF PAGES</u>
/ GPC II-102	VOGTLE PROC. 13145-1	1
/ GPC II-103	TAPE 19 EXCERPT	4
/ GPC II-104	TAPE 32 EXCERPT	5

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JULY 12, 1995

<u>EXHIBIT NO.</u>	<u>DESCRIPTION</u>	<u>NO. OF PAGES</u>
INT-II-167	HAIRSTON NOTES	WITHDRAWN P. 9017
/GPC II-105	GPC WORKING SCHEDULE	5
/GPC II-106	LER 1-90-6	8
/GPC II-107	4-30 MEMO FROM BOCKHOLD	1
/GPC II-108	4-11-90 TAPE 42 EXCERPT	19
/GPC II-109	5-2-90 TAPE 90 EXCERPT	11
/GPC II-110	LER 1-90-6 REV. 1	9
/GPC II-111	MEMO 5-9-90	3
/GPC II-112A	7-23 MOTION TO COMPEL	10
/GPC II-112B	7-30-93 LETTER, MOSBAUGH	1



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<u>EXHIBIT NO.</u>	<u>DESCRIPTION</u>	<u>NO. OF PAGES</u>
/ INT II-167	TAPE 259 DENIED ADMITTANCE/BOUND 1 P.	
/ INT II-107	8-1-94 RESPONSE	10
/ INT II-168	7-7-94 GPC RESPONSE	95

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<u>EXHIBIT NO.</u>	<u>DESCRIPTION</u>	<u>NO. OF PAGES</u>
/ GPC II-113	MOSBAUGH TRAINING REC.	1
/ GPC II-114	OI INTERVIEW EXCERPT	6
/ GPC II-115	MR. TATE'S NOTES	6
/ GPC II-116	TAPE 172 EXCERPT	21
/ GPC II-117	TAPE 79 EXCERPT	4
/ GPC II-118	TECHNICAL SPECS 3.8.1.2	1 (BOUND)

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JULY 17, 1995

<u>EXHIBIT NO.</u>	<u>DESCRIPTION</u>	<u>NO. OF PAGES</u>
/GPC II-119	4-30-90 MEMO, BOCKHOLD	1 (BOUND)
/GPC II-120	TAPE 72 TRANSCRIPT	21
/GPC II-121	TRANS. EXCERPT, MOSBAUGH	4 (BOUND)
/GPC II-122	"AGREED" TRANSCRIPT	16 (BOUND)
/GPC II-123	TRAVEL RECORD	8 (BOUND)
/GPC II-124	HYUCK AFFADAVIT	16

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/ INT II-169	DEMONSTRATIVE AID 4	8
/ GPC II-125 (1 COPY)	8-23-90 MEMO	9 (BOUND)
/ INT II-48	TRANSCRIPT EXCERPT	14
/ GPC II-126	7-17, 7-18, 1990 EXCERPT	3 (BOUND)
/ GPC II-127	MEMO	1 (BOUND)
/ GPC II-128	MOSBAUGH OI INT. EXCERPT	51

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<u>EXHIBIT NO.</u>	<u>DESCRIPTION</u>	<u>NO. OF PAGES</u>
/GPC II-125 (CORRECTED VERSION)	MEMO 8-23-90	6 (BOUND)
/GPC II-129	WORK REQUEST PROG.	35
/GPC II-130	3-11-92 TRANS. MOSB.	4 (BOUND)
/GPC II-131	5-14-93, PLEADING	7 (BOUND)
/GPC II-132	NRC MEETING NOTES	49
/GPC II-133	TAPE 69 EXCERPT	12
/GPC II-134	7-11-90 UPDATE	7
/GPC II-135	VOL 3, MOSBAUGH DEPO	44
/GPC II-136	7-11-90 EVENT REPORT	26
/GPC II-137	SPECIAL REPORT, HAIRSTON	3
/STAFF II-14	TAPE 90, SIDE A	8 (BOUND)
/STAFF II-12	1A LIST (DGIA)	4 (BOUND)

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/STAFF II-1	LER REVISION COVER	2 (BOUND)
STAFF II-14	IDENTIFIED/ BOUND	06-19-95
STAFF II-12	IDENTIFIED/BOUND	06-19-95
/STAFF II-16	TAPE 160 EXCERPT	2 (BOUND)
/STAFF II-17	TAPE 258 EXCERPT	2 (BOUND)
GPC II-98A	IDENTIFIED	07-07-95
GPC II-99	IDENTIFIED/BOUND	07-07-95
GPC II-102	IDENTIFIED	07-11-95
GPC II-105	IDENTIFIED	07-12-95
GPC II-106	IDENTIFIED	07-12-95
GPC II-108	IDENTIFIED	07-12-95
GPC II-110	IDENTIFIED	07-12-95
GPC II-111	IDENTIFIED	07-12-95
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GPC II-123	IDENTIFIED/BOUND	07-17-95
GPC II-125	IDENTIFIED/BOUND	07-18-95
	REPLACED/BOUND	07-19-95
GPC II-126	IDENTIFIED/BOUND	07-18-95
GPC II-128	IDENTIFIED	07-18-95
GPC II-130	IDENTIFIED/BOUND	07-19-95
GPC II-131	IDENTIFIED/BOUND	07-19-95
GPC II-132	IDENTIFIED	07-19-95
GPC II-133	IDENTIFIED	07-19-95
GPC II-134	IDENTIFIED	07-19-95
GPC II-135	IDENTIFIED	07-19-95
/ STAFF II-2	EXCERPT, 1.9 OF FSAR	2 (BOUND)
/ STAFF II-3	REGULATORY GUIDE 1.68.3	5
/ STAFF II-4	PROCEDURE 11882-1	29
/ STAFF II-5	06-20-90 MEMO, CASTO	16 (BOUND)
/ STAFF II-10	INSPECTION REPORT	11 (BOUND)
/ GPC II-140	AUFDENKAMPE AFFADAVIT	42