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C. K. McCoy
Vice President, Nuclear
Vogtle Project



September 30, 1994

LCV-0478

Docket No. 50-424

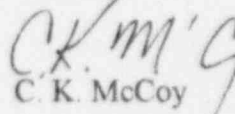
U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555

Ladies and Gentlemen:

VOGTLE ELECTRIC GENERATING PLANT
LICENSEE EVENT REPORT -
REACTOR TRIP AT LOW POWER DUE TO NEUTRON DETECTOR FAILURE

In accordance with the requirements of 10 CFR 50.73, Georgia Power Company (GPC) submits the enclosed report related to an event which occurred on September 11, 1994.

Sincerely,


C. K. McCoy

CKM/AFS

Enclosure: LER 1-94-6

cc: Georgia Power Company
Mr. J. B. Beasley, Jr.
Mr. M. Sheibani
NORMS

U. S. Nuclear Regulatory Commission
Mr. S. D. Ebnetter, Regional Administrator
Mr. D. S. Hood, Licensing Project Manager, NRR
Mr. B. R. Bonser, Senior Resident Inspector, Vogtle

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ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS
INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD
COMMENTS REGARDING BURDEN ESTIMATE TO THE
INFORMATION AND RECORDS MANAGEMENT BRANCH
(MNNB77714). U.S. NUCLEAR REGULATORY COMMISSION,
WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK
REDUCTION PROJECT (31550-0104). OFFICE OF MANAGEMENT AND
BUDGET, WASHINGTON, DC 20503

OF		3
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REACTOR TRIP AT LOW POWER DUE TO NEUTRON DETECTOR FAILURE

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)																								
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME					DOCKET NUMBER(S)																			
									FACILITY NAME																								
0	9	1	1	9	4	9	4	-	0	0	6	-	0	0	0	9	3	1	0	9	4	0					5	0	0	0	0	1	1
OPERATING MODE (9)			2			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 2.204 (Check one or more of the following) (11)																											
POWER LEVEL (10)			0			0			0			20 402(b)			20 405(c)			X			50 73(a)(2)(iv)			73.71(b)									
POWER LEVEL (10)			0			0			0			20 405(a)(1)(i)			50 36(c)(1)						50 73(a)(2)(v)			73.71(c)									
POWER LEVEL (10)			0			0			0			20 405(a)(1)(ii)			50 36(c)(2)						50 73(a)(2)(vi)												
POWER LEVEL (10)			0			0			0			20 405(a)(1)(iii)			50 73(a)(2)(i)						50 73(a)(2)(vii)(A)			OTHER (Specify in Abstract below and in Text, NRC Form 366A)									
POWER LEVEL (10)			0			0			0			20 405(a)(1)(iv)			50 73(a)(2)(ii)						50 73(a)(2)(vii)(B)												
POWER LEVEL (10)			0			0			0			20 405(a)(1)(v)			50 73(a)(2)(iii)						50 73(a)(2)(ix)												

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CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
B	I G	A M P	W 1 2 0	Y						

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ABSTRACT (Limit to 1400 spaces, i.e. approximately 15 single-space typewritten lines) (16)

On September 11, 1994, Unit 1 was being shut down in preparation for a refueling outage by inserting control rods into the reactor. The source range neutron detector NI-0032 automatically energized, as required. Upon energization at 0036 EDT, NI-0032 sent a high flux signal that initiated an automatic reactor trip. A normal trip sequence ensued and personnel continued unit operations in Mode 3 (hot standby).

The cause of this event was found to be a loose capacitor in the NI-0032 neutron detector pre-amplifier that was causing a spiked signal to be generated as it intermittently made contact. This spiking was interpreted by the detector's circuitry to be a high flux condition. The pre-amplifier was replaced and NI-0032 was returned to service.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS
INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD
COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION
AND RECORDS MANAGEMENT BRANCH (MNBB7714), U.S.
NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-
0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104),
OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

DOCKET NUMBER (2)

LER NUMBER (6)

PAGE (3)

Vogtle Electric Generating Plant - Unit

0500042

YEAR	SEQUENTIAL NUMBER	REVISION NUMBER
94	006	00

2 OF 3

TEXT (If more space is required, use additional copies of NRC Form 366A)(17)

A. REQUIREMENT FOR REPORT

This report is required per 10 CFR 50.73 (a)(2)(iv) because an unplanned actuation of the reactor protection system (RPS) occurred.

B. UNIT STATUS AT TIME OF EVENT

At the time of this event, Unit 1 was operating at 10E+4 counts per second (cps). Other than that described herein, there was no inoperable equipment that contributed to the occurrence of this event.

C. DESCRIPTION OF EVENT

On September 11, 1994, Unit 1 was being shut down in preparation for a refueling outage by inserting control rods into the reactor. The source range neutron detector NI-0032 automatically energized, as required. Upon energization at 0036 EDT, NI-0032 sent a high flux signal that initiated an automatic reactor trip. All control rods automatically inserted as required. A feedwater isolation signal was received, but the main feedwater system was already out of service and the auxiliary feedwater system was supplying the steam generators. A normal unit shutdown ensued and personnel continued unit operations in Mode 3 (hot standby).

D. CAUSE OF EVENT

The cause of this event was the failure of NI-0032. An investigation found a loose capacitor in a detector pre-amplifier that was causing a spiked signal to be generated as it intermittently made contact. This spiking was interpreted by the detector's circuitry to be a high flux condition.

E. ANALYSIS OF EVENT

The RPS actuated as designed to effect a unit trip upon receiving a high neutron flux signal. Personnel responded as required to ensure that a normal trip sequence occurred. Based on these considerations, there was no adverse affect on plant safety or on the health and safety of the public as a result of this event.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNB67714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

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F. CORRECTIVE ACTIONS

The pre-amplifier with the loose capacitor was replaced and NI-0032 was returned to service.

G. ADDITIONAL INFORMATION

1) Failed Components:

Neutron detector pre-amplifier manufactured by Westinghouse Electric Corp.
Part # 1469F29G01.

2) Previous Similar Events:

None

3) Energy Industry Identification System Code:

Neutron Detector System - IG
Main Feedwater System - SJ
Auxiliary Feedwater System - BA
Control Rod Drive System - AA