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November 17, 2000

LCV-1254-A

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 2-1998-007, REVISION 1
LOSS OF FEEDWATER FLOW LEADS TO REACTOR TRIP**

In accordance with the requirements of 10 CFR 50.73, Southern Nuclear Operating Company hereby submits a revised Vogtle Electric Generating Plant licensee event report. A corrective action to repair or replace power supplies has been changed. A new type of power supply is being installed over the next two years to allow time for engineering evaluation of the new power supplies' performance. This installation will be completed during the Unit 1 tenth refueling outage, and the Unit 2 eighth and ninth refueling outages.

Sincerely,

J. B. Beasley, Jr.

JBB/TEW

Enclosure: LER 2-1998-007, Revision 1

cc: Southern Nuclear Operating Company
Mr. J. T. Gasser
Mr. M. Sheibani
SNC Document Management

U. S. Nuclear Regulatory Commission
Mr. L. A. Reyes, Regional Administrator
Mr. Ramin R. Assa, Vogtle Project Manager, NRR
Mr. J. Zeiler, Senior Resident Inspector, VEGP

IE22

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REQUIRED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), 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.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)

Vogtle Electric Generating Plant - Unit 2

DOCKET NUMBER (2)

05000425

PAGE (3)

1 OF 3

TITLE (4)

LOSS OF FEEDWATER FLOW LEADS TO MANUAL REACTOR TRIP

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)
08	24	98	98	007	01					050000
										050000

OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more) (11)			
1	20.2201(b)	20.2203(a)(2)(v)	50.73(a)(2)(i)	50.73(a)(2)(viii)
POWER LEVEL (10) 100	20.2203(a)(1)	20.2203(a)(3)(i)	50.73(a)(2)(ii)	50.73(a)(2)(x)
	20.2203(a)(2)(i)	20.2033(a)(3)(ii)	50.73(a)(2)(iii)	73.71
	20.2203(a)(2)(ii)	20.2033(c)(1)	X 50.73(a)(2)(iv)	OTHER
	20.2203(a)(2)(iii)	50.36(c)(1)	50.73(a)(2)(v)	Specify in Abstract below
	20.2203(a)(2)(iv)	50.36(c)(2)	50.73(a)(2)(vii)	or in NRC Form 366A

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (include area code)
Mehdi Sheibani, Nuclear Safety and Compliance	706 826-3209

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
B	E D	I N V T	W 1 2 0	N					
B	J G	R J X	W 1 2 0	N					

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
X					

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

On August 24, 1998, at 1731 EDT, an inverter failure led operators to transfer 120-volt instrument panel 2NY1N to its alternate power supply. After the transfer, operators noticed that the 26-volt primary power supply to process control rack #3 had not re-energized and the control rack was operating off its 24-volt backup power supply. The operators prepared to initiate troubleshooting. At 1823 EDT, the backup power supply to control rack #3 failed. Several control loops lost power and the steam generator (SG) #3 main feedwater regulating valve, 2FV-530, closed. Operators observed water level decreasing in SG #3 and manually tripped the reactor. Other than minor discrepancies, a normal reactor trip evolution and recovery ensued.

Loss of feed water flow to SG #3 was caused by consecutive failures of primary and backup power supplies to process control rack #3. The manual reactor trip was performed in anticipation of low water level in SG #3. SG low water level is a condition for automatic reactor trip. The inverter was repaired and both process control rack #3 power supplies were replaced. A design change is in progress to install a new type of power supply in the process control and protection cabinets in both units over the next two years.

**LICENSEE EVENT REPORT (LER)
 TEXT CONTINUATION**

FACILITY NAME (1) Vogtle Electric Generating Plant - Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 4 2 5	LER NUMBER (6)			PAGE (3)		
		YEAR 9 8	SEQUENTIAL NUMBER 0 0 7	REVISION NUMBER 0 1			

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 reactor protection system actuation occurred.

B. UNIT STATUS AT TIME OF EVENT

At the time of this event, Unit 2 was operating in Mode 1 at 100 percent of rated thermal power. Other than that described herein, there was no inoperable equipment that contributed to the occurrence of this event.

C. DESCRIPTION OF EVENT

On August 24, 1998, at 1731 EDT, an inverter failure led operators to transfer 120-volt instrument panel 2NY1N to its alternate power supply. After the transfer, operators noticed that the 26-volt primary power supply to process control rack #3 had not re-energized and the control rack was operating off its 24-volt backup power supply. The operators prepared to initiate troubleshooting.

At 1823 EDT, the backup power supply to control rack #3 failed. Several control loops lost power and the steam generator (SG) #3 main feedwater regulating valve, 2FV-530, closed. Operators observed water level decreasing in SG #3 and manually tripped the reactor. Other than minor discrepancies, a normal reactor trip evolution and recovery ensued. The NRC operations center was notified of the reactor trip at 1956 EDT.

D. CAUSE OF EVENT

The inverter lost power when a fuse blew due to a circuit card failure. Loss of feedwater flow to SG #3 was caused by consecutive failures of primary and backup power supplies to process control rack #3. The primary power supply failed when a fuse overheated in a loose fuse holder. The backup power supply failed when a capacitor faulted. As a result of these failures, a manual reactor trip was performed in anticipation of low water level in SG #3. SG low water level is a condition for automatic reactor trip.

**LICENSEE EVENT REPORT (LER)
 TEXT CONTINUATION**

FACILITY NAME (1) Vogtle Electric Generating Plant - Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 4 2 5	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		9 8	0 0 7	0 1	3	OF	3

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

E. ANALYSIS OF EVENT

Operators acted appropriately to manually trip the reactor prior to the occurrence of an automatic trip due to SG low water level. The main feedwater system then isolated and auxiliary feedwater actuated as designed to maintain SG water levels. Operators responded as required to transition the unit to stable operation in Mode 3 (hot standby). 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.

F. CORRECTIVE ACTIONS

- 1) The inverter was repaired and both process control rack #3 power supplies were replaced.
- 2) Tests performed on other Unit 2 process control racks revealed two additional power supplies that had failed due to faulty 20 microfarad capacitors. These power supplies were also replaced.
- 3) A new type of power supply has been installed in six of the Unit 1 process control cabinets. This new type of power supply will be installed in the other process control and protection cabinets during refueling outages in both units over the next two years. This installation will be completed during the Unit 1 tenth refueling outage, and the Unit 2 eighth and ninth refueling outages.

G. ADDITIONAL INFORMATION

- 1) Failed Components:
 - a) 7.5 kVa Inverter manufactured by Westinghouse Electric Corporation.
 - b) Process control rack power supplies manufactured by Westinghouse Electric Corporation.
- 2) Previous Similar Events:

None
- 3) Energy Industry Identification System Code:
 - Main Feedwater System – SJ
 - Auxiliary Feedwater System – BA
 - 120-volt AC Power System – ED
 - Process Control System – JG