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SOUTHERN COMPANY
Energy to Serve Your World℠

January 21, 2000

LCV-1368-A

Docket No. 50-424
50-425

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

Ladies and Gentlemen:

VOGTLE ELECTRIC GENERATING PLANT
LICENSEE EVENT REPORT 1-99-002
HIGH-ENERGY LINE BREAK INSTRUMENT CHANNELS
INADEQUATELY CALIBRATED

Southern Nuclear Operating Company hereby submits a revision to the Vogtle Electric Generating Plant licensee event report that was submitted to the NRC on July 30, 1999. This revision is submitted to document that a broadness review has determined that testing for interlock relay contacts in the Cold Overpressure Protection System was also inadequate.

Sincerely,

J. B. Beasley, Jr.

JBB/JPC

Enclosure: LER 1-99-002, Revision 1

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

IE22

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

NRC FORM 366 (6-1998) U.S.NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104 EXPIRES: 06/30/2001
Estimated burden per response to comply with this mandatory information request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the 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. If an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

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TITLE (4)

HIGH-ENERGY LINE BREAK INSTRUMENT CHANNELS INADEQUATELY CALIBRATED

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
									VEGP – UNIT 2	0 5 0 0 0 4 2 5
0 6	3 0	1 9 9 9	1 9 9 9	0 0 2	0 1	0 1	2 1	2 0 0 0	FACILITY NAME	0 5 0 0 0

OPERATING MODE (9)	1
POWER LEVEL (10)	1 0 0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR □: (Check one or more) (11)

	20.2201(b)		20.2203(a)(2)(v)	X	50.73(a)(2)(i)		50.73(a)(2)(viii)
	20.2203(a)(1)		20.2203(a)(3)(i)		50.73(a)(2)(ii)		50.73(a)(2)(x)
	20.2203(a)(2)(i)		20.2203(a)(3)(ii)		50.73(a)(2)(iii)		73.71
	20.2203(a)(2)(ii)		20.2203(a)(4)		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	7 0 6 - 8 2 6 - 3 2 0 9

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

SUPPLEMENTAL REPORT EXPECTED (14)			EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
	YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

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

On June 30, 1999, an Instruments and Controls (I&C) procedure writer and assistant team leader (ATL) were reviewing a draft procedure revision. The procedure writer and ATL discovered that existing procedures did not adequately test several relays in a portion of the process control system. These relays send a signal to close steam generator blowdown (SGBD) isolation valves, and failure of these valves to close would defeat the high-energy line break (HELB) isolation function. Further investigation revealed that a similar condition existed for all of the SGBD instrument channels as well as the chemical volume and control system letdown isolation functions. The control room was notified. Testing of all the affected relays was performed and found no failures. The failure to adequately test these relays represents plant operation in a condition prohibited by the TS.

The cause of this event was inadequate surveillance testing procedures. These procedures, written during initial plant startup, were inadequate because they did not fully verify proper operation of the HELB instrumentation channel circuits. Procedure revisions to add relay testing have been completed.

On January 3, 2000, broadness review actions to find similar insufficiently tested components determined that testing for interlock relay contacts in the Cold Overpressure Protection System was inadequate. Testing was performed and no inoperable relay contacts were found.

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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)(i) because the unit operated in a condition prohibited by the Technical Specifications (TS) when surveillance testing was inadequate.

B. UNIT STATUS AT TIME OF EVENT

At the time of the discovery of this event, both Unit 1 and Unit 2 were operating in Mode 1 (power operation) 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 June 30, 1999, an Instruments and Controls (I&C) procedure writer and assistant team leader (ATL) were reviewing a proposed revision to procedure 24501-1, "Steam Generator Blowdown Pipe Break Room Protection R-B08 1T15212A Analog Channel Operational Test And Channel Calibration." The procedure writer and ATL discovered that the procedure did not address testing of a relay on an annunciator interface (NAI) circuit board in the 7300 process control system. The relay represents a portion of the circuit involved. They determined that failure of this or similar relays would prevent a signal from being sent to the auxiliary relay panel. This would allow the steam generator blowdown (SGBD) isolation valves, 1HV-15212A, 1HV-15212B, 1HV-15212C and 1HV15212D to remain in the open position, defeating the high-energy line break (HELB) isolation function of these valves. Further investigation revealed that similar conditions existed for the remainder of the SGBD instrument channels as well as chemical volume and control system (CVCS) letdown isolation functions. This represented a total of 44 instrumentation channels in Unit 1 and Unit 2.

Technical Requirements Manual (TRM) section 13.3.4 addresses HELB isolation and requires channel operational testing of each of the SGBD and CVCS letdown instrumentation channels on an 18-month frequency. The control room was notified of the inadequate testing, and limiting conditions for operation (LCOs) were entered in each unit at 1115 EDT. Work orders were initiated and the relay testing was successfully performed. The Unit 1 LCO was exited at 2145 EDT and the Unit 2 LCO was exited at 2230 EDT.

Although this TRM violation for inadequately performed surveillances is not reportable, the 18-month testing requirement was a part of the TS prior to January 1997. Since these surveillance tests were not performed from initial plant startup in 1987 until the requirement was removed from the TS in 1997, the plant operated in a condition prohibited by the TS during that 10-year period.

D. CAUSE OF EVENT

The cause of this event was that the surveillance testing procedures, as initially written during plant startup, were inadequate because they did not fully verify proper operation of the HELB instrumentation channel circuits.

E. ANALYSIS OF EVENT

Successful testing of the relays involved showed that they were capable of continuing to perform their intended safety function. Even if any one valve in a line of piping failed to isolate, a redundant valve was available in each case to perform the same isolation function. 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) Work orders were written to test the relays, and subsequent testing demonstrated that all were operating properly.

2) The procedures involved were revised to include the relay testing.

3) In addition, on January 3, 2000, a broadness review to find similar insufficiently tested components determined that testing was inadequate for interlock relay contacts in the Cold Overpressure Protection System (COPS). The control room was advised, but no immediate TS required action was needed because COPS is only required to be operable when the units are shutdown. Necessary procedures were revised and testing was completed on January 5, 2000. No inoperable relay contacts were found. This provides assurance that COPS would have performed its intended safety function had it been required. The testing procedures for these

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

relays specified the incorrect contacts for testing. The broadness review was completed on January 14, 2000.

G. ADDITIONAL INFORMATION

1) Failed Components:
None

2) Previous Similar Events:
LER 50-424/1997-002-02, dated March 3, 1998. This LER addressed surveillance testing for relays and contacts in various systems that had been inadequately performed since initial plant startup.
LER 50-424/1998-002-00, dated February 12,1998. This LER addressed surveillances of specific functions in the solid state protection system that had been inadequately performed, also since initial plant startup.

3) Energy Industry Identification System Code:
Steam Generator Blowdown System – WI
Chemical Volume and Control System – CB
7300 Process Control System - JG