UPDATED REPORT

POW 28-06-01-01

NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Surry Power Station, Unit 2	0 5 0 0 0 2 8 1	1 OF 0 3

TITLE (4)

Consequence Limiting Safeguards Relay Failures

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 NAMES	DOCKET NUMBER(S)
											0 5 0 0 0
0 8	2 1	8 6	8 6	–	0 1 2	– 0 0	0 9	1 9	8 6		0 5 0 0 0

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
N		20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
1 0 0		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
	AREA CODE
R. F. Saunders, Station Manager	8 0 4 3 5 7 – 3 1 8 4

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	
X	J E	R L Y	W 1 2 0	Y							

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 fifteen single-space typewritten lines) (16)

On August 21, 1986 at 1400 hours, with Unit 1 and Unit 2 at 100% power, Unit 2 relay LM-REL-200A1 was found failed during the performance of a monthly Performance Test (PT). Relay LM-REL-200A1 provides 1 of the 4 actuation signals to the 'A' Train of Consequence Limiting Safeguards (CLS) High High. On August 26, 1986 at 0942, with Unit 1 at 80% power and Unit 2 at 100% power, Relay R-LM-REL-200A2, which is the corresponding 'B' Train CLS High High Relay, was found failed. Failure of these relays reduced their respective trains of CLS High High from a 3 out of 4 matrix to a 3 out of 3 matrix to initiate. This is contrary to Technical Specification 3.7.B which requires a minimum of 1 degree of redundancy for the CLS High High instrumentation. The 1 degree of redundancy was restored in both events within 2 hours and 45 minutes by jumpering the relays. The relays were later replaced and tested.

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NRC Form 366
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NRC Form 366A
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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

Consequence Limiting Safeguards Relay Failures

1.0 Description of the Event

On August 21, 1986 at 1400 hours with Unit 1 at 100% power and Unit 2 at 100% power, a Unit 2 relay LM-REL-200A1 (EIIS RLY) was found inoperable during performance of the monthly periodic test. Relay R-LM-200A1 provides 1 of 4 actuation signals to the 'A' Train of CLS High High. On August 26, 1986 at 0942 with Unit 1 at 80% power and Unit 2 at 100% power, the Unit 2 relay LM-REL-200A2 (EIIS RLY) was found inoperable during the completion of the same periodic test. The relay LM-REL-200A2 is the corresponding relay to the previously failed relay LM-REL-200A1, for the 'B' Train of CLS High High.

CLS High High requires a 3 out of 4 actuation signal matrix to initiate each train of CLS High High. Failure of these relays caused each train of CLS High High to require 3 out of 3 actuation signals to initiate. This is contrary to T.S.3.7.B, which requires a minimum of 1 degree of redundancy for the CLS High High Instrumentation System. The Relays were jumpered out via a temporary modification which installed a trip signal making each train of CLS High High a 2 out of 3 matrix to initiate, which meets the requirements of T.S.3.7.B. Each temporary modification was completed within 2 hours and 45 minutes which is within the time requirements of T.S.3.0.

2.0 Safety Consequences and Implications

CLS High High provides initiation of Containment Spray, Recirculation Spray and additional Containment Isolation for a containment overpressurization event. These actions mitigate the consequences of a LOCA or a MSLB inside containment.

During the time that these relays were failed, the remaining three signals to actuate each train of CLS High High were operable and would have provided CLS High High initiation if required. Additionally, the ability to manually initiate CLS High High was not affected by these failures. Therefore, the health and safety of the public were not affected.

Form 366A

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

3.0 Cause

The two relays that failed are powered from the same Comparator in LM-PS-200A. On August 12, 1986, Comparator LM-PS-200A was replaced due to intermittent operation of output #1. LM-PS-200A Comparator output #1 feeds both of the failed relays and constant energizing/deenergizing could have caused the relays to chatter and fail.

4.0 Immediate Corrective Actions

The failed relays were jumpered via temporary modifications to install trip signals to their corresponding CLS High High Trains.

5.0 Subsequent Corrective Actions

The failed relays were replaced and tested in accordance with approved procedures.

6.0 Action Taken to Prevent Recurrence

None deemed necessary. The comparator failure is considered a random failure.

7.0 Generic Implications

None.

Vepco

VIRGINIA ELECTRIC AND POWER COMPANY

Surry Power Station
P. O. Box 315
Surry, Virginia 23883

October 13, 1986

U.S. Nuclear Regulatory Commission
Document Control Desk
016 Phillips Building
Washington, D.C. 20555

Serial No: 86-036A
Docket No: 50-281
License No: DPR-37

Gentlemen:

Pursuant to Surry Power Station Technical Specifications, Virginia Electric and Power Company hereby submits the following updated Licensee Event Report for Surry Unit 2. The Report Date, Block 7, was inadvertently left blank.

REPORT NUMBER

86-012-00

This report has been reviewed by the Station Nuclear Safety and Operating Committee and will be reviewed by Safety Evaluation and Control.

Very truly yours,

H L Miller
for R. F. Saunders
Station Manager

Enclosure

cc: Dr. J. Nelson Grace
Regional Administrator
Region II
U.S. Nuclear Regulatory Commission
Suite 2900
101 Marietta St., N.W.
Atlanta, Georgia 30323

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