POW 28-06-02

NRC Form 366 (9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
SURRY POWER STATION, UNIT NO. 2	0 5 0 0 0 2 8 1	1 OF 0 3

TITLE (4)

Reactor Trip Due to RCP 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 NAMES	DOCKET NUMBER(S)
										0 5 0 0 0
0 3	1 6	8 4	8 4	- 0 0 5	- 0 0	0 4	1 3	8 4		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)	1 0 0	20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
		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)	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
J. L. Wilson - Station Manager	AREA CODE 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	S J	F C V	C 6 3 5	Y							
X	A A	Z I	W 1 2 0	Y							

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

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

On March 16, a reactor trip occured as a result of a Reactor Coolant Pump trip. The RCP trip was due to water in the electrical penetration for its motor leads. The water grounded the 'C' phase and tripped the RCP breaker. The penetration was replaced with a spare and was meggered and type 'B' tested satisfactorily.

The water is suspected to have originated from aux. feed check valve leaks above the penetrations. The aux. feed check valves have been repaired during the present outage.

NRC Form 366A (9-83)

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

1.0 Description of the Event

On March 16, 1984 @ 0957 hours, with the unit at 100% power, a reactor trip occured as a result of a Reactor Coolant Pump Trip.

Immediately following the reactor trip, operators noted that the 'B' main feed reg. valve, FCV-FW-2488 (EIIS NO. FCV), failed to completely close and a rod position indicator (EIIS NO. AA), indicated that rod G3 was at 25 steps.

In addition, the boron injection tank was injected to borate the reactor coolant system to cold shutdown concentration since a maintenance outage had been scheduled to begin that day.

All other protection and control systems were noted to function properly and operators followed appropriate plant procedures and stabilized the plant following the reactor trip.

2.0 Safety Consequences and Implications

The isolation of the feed reg. valves following a reactor trip in coincidence with low Tave, or a Safety Injection, minimizes excessive primary plant cooldown in the event of a steam-line break.

The main feed pumps would have tripped in the event of a Safety Injection Signal and would have provided the required feedwater isolation. In addition, all other safety related systems remained operable during the event and plant parameters remained within the bounds of the accident analysis. Therefore, this event did not constitute an unreviewed safety question nor affect the health and safety of the public.

3.0 Cause

The cause of the reactor trip was due to the 'B' RCP trip. Water was discovered in the electrical penetration for the RCP motor leads. The water grounded the 'C' phase of the leads in the penetration and as a result, tripped RCP breaker. An isotopic analysis of the water determined that it did not contain any radioactive contaminants. Therefore, it is suspected that the water originated from aux. feed check valve leaks located above the penetrations.

Instrument techs determined that the control rod indication for rod G3 was incorrect. Voltage measurements taken at the signal conditioning modual, immediately after the trip, indicated that the rod had completely inserted.

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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)

4.0 Immediate Corrective Action

Operators performed all appropriate Emergency Procedures and Function Restoration Procedures to ensure the plant was returned to a stable condition. This included isolating the feedwater to the 'B' steam generator by closing isolation valve MOV-FW-154B. In addition, instrument techs were present at the time of the trip and immediately determined that the G3 control rod had completely inserted, and the indication was incorrect and adjusted IRPI-G3.

Also, the STA performed the Critical Safety Function status tree reviews to ensure specific plant parameters were noted and the appropriate procedures were used to maintain those parameters within safe bounds.

5.0 Additional Corrective Actions

The faulty penetration was removed and replaced with a spare penetration and three additional 4160 volt penetrations were inspected. The penetration below the faulty penetration was noted to contain some water, and the water was removed. Two penetrations beside the faulty penetration were noted to be dry. In addition, all the penetrations inspected were meggared and type 'B' tested satisfactorily.

6.0 Action Taken to Prevent Recurrence

The aux. feed check valves have been repaired during the present outage.

The unit 1 feed reg. valve operators and control instrumentation were overhauled during a recent outage with a manufacturer's representative present to assist. An identical overhaul, with the exception of the manufacturer's representative being present, has been performed on the unit 2 feed reg. valves during the present outage.

7.0 Generic Implications

None.

Vepco

VIRGINIA ELECTRIC AND POWER COMPANY
Surry Power Station
P. O. Box 315
Surry, Virginia 23883

APR 13 1984

Serial No: 84-013

Docket No: 50-281

License No: DPR-37

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

Gentlemen:

Pursuant to Surry Power Station Technical Specifications, the Virginia Electric and Power Company hereby submits the following Licensee Event Report for Surry Unit 2.

REPORT NUMBER

84-005-00

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,

J. L. Wilson
Station Manager

Enclosure

cc: Mr. James P. O'Reilly
Regional Administrator
Suite 2900
101 Marietta Street, NW
Atlanta, Georgia 30303

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