



Carolina Power & Light Company
Harris Nuclear Plant
PO Box 165
New Hill NC 27562

SEP 22 2000

U.S. Nuclear Regulatory Commission
ATTN: NRC Document Control Desk
Washington, DC 20555

Serial: HNP-00-145
10CFR50.73

SHEARON HARRIS NUCLEAR POWER PLANT UNIT 1
DOCKET NO. 50-400
LICENSE NO. NPF-63
LICENSEE EVENT REPORT 2000-002-01

Sir or Madam:

In accordance with 10CFR50.73, the enclosed Licensee Event Report is submitted. This report describes a Technical Specification violation caused by an inoperable radiation monitor. This revision modifies corrective actions submitted in the previous report.

Sincerely,

R. J. Duncan II
General Manager
Harris Plant

MSE/mse

Enclosure

c: Mr. J. B. Brady (HNP Senior NRC Resident)
Mr. R. J. Laufer (NRC-NRR Project Manager)
Mr. L. A. Reyes (NRC Regional Administrator, Region II)

JE22

LICENSEE EVENT REPORT (LER)

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

FACILITY NAME (1)

Harris Nuclear Plant, Unit 1

DOCKET NUMBER (2)

05000400

PAGE (3)

1 OF 3

TITLE (4)

Technical Specification Violation Due To Inoperable Radiation Monitor

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
04	13	2000	2000	- 002	-- 01	09	22	2000		05000
									FACILITY NAME	DOCKET NUMBER
										05000

OPERATING MODE (8) MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)									
		20.2201(b)		20.2203(a)(2)(v)	<input checked="" type="checkbox"/>	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)		20.2203(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	Mark Ellington, Project Analyst - Licensing	TELEPHONE NUMBER (Include Area Code)	(919) 362-2057
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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
D	IL	RE	Sorrento Electronics	Y					

SUPPLEMENTAL REPORT EXPECTED (14)

EXPECTED SUBMISSION DATE (15)

YES (If yes, complete EXPECTED SUBMISSION DATE).	<input checked="" type="checkbox"/>	NO	MONTH	DAY	YEAR
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On April 13, 2000, with the Harris Nuclear Plant (HNP) at 100% reactor power, an investigation determined that the Containment Reactor Coolant Leakage Detection System Radiation Monitor, REM-01LT-3502ASA, Particulate Channel was inoperable longer than allowed by HNP Technical Specifications (TS). The REM-01LT-3502ASA was inoperable due to the filter paper moving too fast resulting in a non-conservative signal being sent to the radiation monitor indication and alarm circuitry. Investigation determined that the filter paper was moving too fast because the slip-clutch on the take-up reel was not adjusted to the correct torque and was not lubricated as recommended by the vendor. This condition existed in excess of 30 days resulting in a violation of HNP TS 3.3.3.1.1.c.1. "Radiation Monitoring", and TS 3.4.6.1.c.a. "Reactor Coolant System Leakage Detection Systems".

Cause of this event: Inadequate preventative and corrective maintenance.

Corrective actions: Placed the Particulate Channel of REM-01LT-3502A in the fixed filter mode of operation. In this mode of operation the filter paper does not move.

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

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
Harris Nuclear Plant, Unit 1	05000400	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 3
		2000	-- 002 --	01	

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

I. DESCRIPTION OF EVENT

On April 13, 2000, with the Harris Nuclear Plant (HNP) at 100% reactor power, an investigation determined that the Containment Reactor Coolant Leakage Detection System Radiation Monitor, REM-01LT-3502ASA, Particulate Channel was inoperable longer than allowed by HNP Technical Specifications (TS). The REM-01LT-3502ASA was inoperable due to the filter paper moving too fast resulting in a non-conservative signal being sent to the radiation monitor indication and alarm circuitry. Investigation determined that the filter paper was moving too fast because the slip-clutch on the take-up reel was not adjusted to the correct torque and was not lubricated as recommended by the vendor. This condition existed in excess of 30 days resulting in a violation of HNP TS 3.3.3.1.1.c.1. "Radiation Monitoring", and TS 3.4.6.1.c.a. "Reactor Coolant System Leakage Detection Systems".

The REM-01LT-3502ASA Particulate Channel normally operates in a moving filter mode. The particulate filter paper is set to move at approximately one inch per hour. The filter speed is used in the algorithm that calculates radioactive particulate activity. Increasing the filter speed results in generating a non-conservative signal to the alarm and indications for the radiation monitor.

The REM-01LT-3502ASA Particulate Channel is part of systems used to monitor and detect leakage from the reactor coolant system pressure boundary (RCSPB). These detection systems are consistent with the recommendations of Regulatory Guide 1.45, "Reactor Coolant Pressure Boundary Leakage Detection Systems" May 1973. Other systems used to detect RCSPB leakage include the REM-01LT-3502ASA Gas Channel and the Reactor Cavity Sump Level and Flow Monitoring System. The REM-01LT-3502ASA Particulate Channel is designed to automatically secure normal containment ventilation purge when the high alarm setpoint is reached. This automatic isolation function is also provided by diverse systems such as the REM-01LT-3502ASA Gas Channel and the Containment Ventilation Isolation Signal Area Monitors. Additionally, a Safety Injection signal will also automatically secure normal containment ventilation purge.

The exact date of the equipment failure could not be determined from the available data. The condition first occurred sometime between February 12, 2000 and February 27, 2000 but was not identified until April 13, 2000. This is because no mechanism existed to verify paper speed in HNP programs and procedures prior to this event. This condition was identified because of concerns being raised about the frequency of replacing filter paper.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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Harris Nuclear Plant, Unit 1	05000400	2000	- 002	- 01	3 OF 3

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

II. CAUSE OF EVENT

Inadequate preventative and corrective maintenance.

III. SAFETY SIGNIFICANCE

There were no actual safety consequences as a result of this event. Diverse systems used to detect RCSPB leakage were available including the REM-01LT-3502ASA Gas Channel and the Reactor Cavity Sump Level and Flow Monitoring System. The automatic isolation of normal containment purge function is provided by diverse systems such as the REM-01LT-3502ASA Gas Channel and the Containment Ventilation Isolation Signal Area Monitors. Additionally, a Safety Injection signal will also automatically secure normal containment ventilation purge. This report is being submitted pursuant to the criteria of 10CFR50.73(a)(2)(i) for Technical Specification Prohibited Operation or Condition.

IV. CORRECTIVE ACTIONS

Placed the Particulate Channel of REM-01LT-3502A in the fixed filter mode of operation. In this mode of operation the filter paper does not move.

V. SIMILAR EVENTS

There have been no previous reportable events at HNP where a radiation monitor particulate channel was inoperable due to filter paper problems.