

# REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8707090410      DDC DATE: 87/07/01      NOTARIZED: NO      DOCKET #  
 FACIL: 50-400 Shearon Harris Nuclear Power Plant, Unit 1, Carolina      05000400  
 AUTH. NAME      AUTHOR AFFILIATION  
 SCHWABENBAUER,      Carolina Power & Light Co.  
 WATSON, R. A.      Carolina Power & Light Co.  
 RECIP. NAME      RECIPIENT AFFILIATION

SUBJECT: LER 87-032-00: on 870602, attempts to refill sample chamber &  
 restore sample flow to radiation monitor resulted in  
 leaving monitor inoperable. Caused by personnel error.  
 radiation monitor setpoints revised. W/870701 ltr.

DISTRIBUTION CODE: IE22D      COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 5  
 TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

NOTES: Application for permit renewal filed. .      05000400

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
	PD2-1 LA	1 1	PD2-1 PD	1 1
	BUCKLEY, B	1 1		
INTERNAL:	ACRS MICHELSON	1 1	ACRS MOELLER	2 2
	AEOD/DOA	1 1	AEOD/DSP/ROAB	2 2
	AEOD/DSP/TPAB	1 1	DEDRO	1 1
	NRR/DEST/ADE	1 0	NRR/DEST/ADS	1 0
	NRR/DEST/CEB	1 1	NRR/DEST/ELB	1 1
	NRR/DEST/ICSB	1 1	NRR/DEST/MEB	1 1
	NRR/DEST/MTB	1 1	NRR/DEST/PSB	1 1
	NRR/DEST/RSB	1 1	NRR/DEST/SGB	1 1
	NRR/DLPQ/HFB	1 1	NRR/DLPQ/GAB	1 1
	NRR/DOEA/EAB	1 1	NRR/DREP/RAB	1 1
	NRR/DREP/RPB	2 2	NRR/PMAS/ILRB	1 1
	NRR/PMAS/PTSB	1 1	<del>REG-FILE</del> 02	1 1
	RES DEPY GI	1 1	RES TELFORD, J	1 1
	RES/DE/EIB	1 1	RGN2 FILE 01	1 1
EXTERNAL:	EG&G GROH, M	5 5	H ST LOBBY WARD	1 1
	LPDR	1 1	NRC PDR	1 1
	NSIC HARRIS, J	1 1	NSIC MAYS, G	1 1

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) SHEARON HARRIS PLANT UNIT 1	DOCKET NUMBER (2) 0 5 0 0 0 4 0 0	PAGE (3) 1 OF 0 4
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TITLE (4)

RADIATION MONITOR - REM-21WL-3541 INOPERABLE

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	6	0	2	8	7	8	7	0	3	2	0	0	0	7	0	1	8	7				
OPERATING MODE (9) 1			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)																			
POWER LEVEL (10) 1 0 0			20.402(b)			20.405(c)			50.73(a)(2)(iv)			73.71(b)										
			20.405(a)(1)(i)			50.38(c)(1)			50.73(a)(2)(v)			73.71(c)										
			20.405(a)(1)(ii)			50.38(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)(ix)													

## LICENSEE CONTACT FOR THIS LER (12)

NAME R. SCHWABENBAUER - REGULATORY COMPLIANCE	TELEPHONE NUMBER AREA CODE 9 1 1 9 3 1 6 2 1 - 1 2 1 6 1 9
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## COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC

## SUPPLEMENTAL REPORT EXPECTED (14)

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

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

ABSTRACT

The plant was operating in Mode 1 at 100 percent reactor power on June 2, 1987. The Waste Monitor Tank Liquid Radiation Monitor (REM-21WL-3541) was mistakenly removed from service and the sample chamber was drained on June 1, 1987 at approximately 1430 hours. Attempts to refill the sample chamber and restore sample flow to the monitor resulted in leaving the monitor inoperable and with incorrect information on the status of the monitor displayed on the Radiation Monitoring System computer. When the error was discovered at approximately 0615 hours on June 2, 1987, a liquid release was being made through this monitor. When the sample flow started, a high radiation alarm terminated the release. Chemistry was requested to collect samples which, when analyzed, agreed with the pre-release sample activity. The unmonitored release was a violation of Technical Specification 3.3.3.10.b, Table 3.3-12, Action 35.

No safety consequences resulted from this event. The release was immediately terminated by a high radiation alarm. Chemistry samples and analyses showed that no limits were exceeded. The high radiation alarm was due to either a noise spike resulting from the pump startup or to a concentrating effect of the activity in the entrance to the previously stagnant sample lines.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
SHEARON HARRIS PLANT UNIT 1	0 5 0 0 0 4 0 0	8 7	0 3 2	0 0	0 2	OF	0 4

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

DESCRIPTION

Plant condition during the following event was Mode 1 at 100 percent reactor power. On June 1, 1987 at approximately 1400 hours, the Radiation Control (RC) Foreman requested an RC Tech. (Technician no. 1) to go to Radiation Monitor REM-21WS-3542 (Secondary Waste Tank), drain the sample chamber, and examine the components so that Technical Support personnel could determine replacement part numbers. Monitor REM-21WS-3542 was inoperable at the time due to a high temperature problem in the sample lines.

Technician no. 1 proceeded to Monitor REM-21WL-3541 (Waste Monitor Tank), thinking that it was REM-21WS-3542. Both monitors are located in the Tank Room at the 236' elevation and have appropriate labelling. Technician no. 1 proceeded to isolate REM-21WL-3541 and drain the sample chamber for disconnection. The monitor actuated a loss-of-sample flow alarm at 1432 hours. Since there was no release in progress at the time, the technician (Technician no. 2) at a Radiation Monitoring System control console (RM-11 console) in the RWP office, acknowledged the alarm without taking any immediate action to try and restore flow.

Technician no. 1 suddenly realized that he was at the wrong monitor. He reconnected all fittings and notified Technician no. 2 that he had drained the wrong monitor, but had reconnected and unisolated the monitor. Technician no. 2 requested sample flow to the monitor via RM-11 at 1442 hours. Several unsuccessful attempts were made to reestablish sample flow in REM-21WL-3541.

Technician no. 1 called the Radiation Control (RC) Foreman and asked how to reestablish flow in a liquid monitor. The RC Foreman gave specific instructions over the phone on how to use a portable control console (RM-23P) locally at the monitor skid to establish flow. Part of those instructions included using the RM-23P to put a substitute value of 001 into the monitor's microprocessor (into Monitor Item 001), turning the skid flow-pump to HAND control, and operating the purge one or more times until flow is established.

Technician no. 1 decided to put the value of 001 into Monitor Item 001 via the RM-11 before proceeding to check out an RM-23P and going to the monitor. However, when he entered the value of 001 into Monitor Item 001, he thought that flow had started since the RM-11 indicated there was flow and showed a value for the flow-rate. He did not know that a value of 001 in Monitor Item 001 was also designed to produce other substitute indications.

Technician no. 1 requested a purge several times at the RM-11 to ensure that the monitor did not lose flow, decided that everything was working fine and ended his shift, forgetting to remove the value of 001 from Monitor Item 001. The monitor was not checked locally to confirm proper status.

During the next shift, a liquid release (# 870996) was requested that would be monitored by REM-21WL-3541. The request was processed and the release was started at 0401 hours on June 2, 1987.



## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

Description (continued)

At approximately 0615 hours on June 2, 1987, while making routine observations, an RC engineer observed that the trend display on that monitor did not look normal. Suspecting that the data base might not be correct, he asked whether or not a release was being made, and checked to see if there was a substitute value for the sample flow. The value of 001 was found to be present in Monitor Item 001.

When the value of 001 was removed at 0626 hours, the monitor actuated a loss of sample flow alarm. When the flow was initiated, a high radiation alarm was received at 0627 hours, and the release was automatically terminated.

RC requested that Chemistry (E&C) personnel collect a sample from the tank being discharged. The results of the sample agreed with the pre-release sample.

Since the sample flow pump was not running, the monitor was inoperable and a release was made from 0401 to 0627 hours on June 2, 1987 that was unmonitored and in violation of Technical Specification 3.3.3.10.b, Table 3.3-12, Action 35.

CAUSE

The RC Technician failed to follow specific instructions from his foreman for establishing liquid sample flow. Since there was no formal procedure, he felt that using the RM-11 was an acceptable approach. Had he used the RM-23P locally at the monitor, he would have been able to tell that the pump was not actually running.

He also failed to follow procedure AP-521, Control of RMS Data Sheet Library, in that he did not restore and document the temporary data base change (Monitor Item 001) to its Data Sheet Library value.

ANALYSIS

As stated above, this event violated Technical Specification 3.3.3.10.b, Table 3.3-12, Action 35. This specification requires that with the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, at least two independent samples must be analyzed, and at least two technically qualified members of the facility staff must independently verify the release rate calculations and discharge line valving. Because the monitor was assumed to be operable, these actions were not taken.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		8 7	— 0 3 2	— 0 0	0 4	OF	0 4				

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

ANALYSIS (continued)

No safety consequences resulted from this event. The release was immediately terminated by a high radiation alarm when the sample pump was started. Chemistry personnel collected a sample, both at the monitor skid and from the tank being discharged. The analysis agreed with the pre-release sample. The high radiation alarm was due to either a noise spike resulting from the pump startup (which is not uncommon) or to a concentrating effect of the activity in the entrance to the previously stagnant sample lines.

This event is reportable under 10CFR50.73(a)(2)(i)(B) as a violation of Technical Specifications 3.3.3.10.b, Table 3.3-12, Action 35.

CORRECTIVE ACTIONS

- 1) The RC Technicians assigned to the RMS have been issued specific direction on following procedural requirements.
- 2) HPP-498, Radiation Monitor Setpoints for Effluent Releases, has been revised to require the RC Technician to verify the data base prior to Radiation Control signing off on a Release Permit.
- 3) A new procedure HPP-495, Liquid Monitor Sample Chamber Replacement, is being prepared to give specific steps to follow for restoring sample flow to a liquid monitor after the chamber and sample lines have been drained.



Carolina Power & Light Company

HARRIS NUCLEAR PROJECT  
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JUL 01 1987

File Number: SHF/10-13510C  
Letter Number: HO-870455 (0)

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

SHEARON HARRIS NUCLEAR POWER PLANT UNIT 1  
DOCKET NO. 50-400  
LICENSE NO. NPF-63  
LICENSEE EVENT REPORT 87-032-00

Gentlemen:

In accordance with Title 10 to the Code of Federal Regulations, the enclosed Licensee Event Report is submitted. This report fulfills the requirement for a written report within thirty (30) days of a reportable occurrence and is in accordance with the format set forth in NUREG-1022, September, 1983.

Very truly yours,

R. A. Watson  
Vice President  
Harris Nuclear Project

RAW:skm

Enclosure

cc: Dr. J. Nelson Grace (NRC - RII)  
Mr. B. Buckley (NRR)  
Mr. G. Maxwell (NRC - SHNPP)