

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Shoreham Nuclear Power Station Unit #1										DOCKET NUMBER (2) 0 5 0 0 0 3 2 2										PAGE 15 1 of 0 2		
TITLE (4) ESF Actuations and Suspended Fire Watches due to Hurricane "Gloria"																						
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 5								
0 9	2 7	8 5	8 5	0 4 6	0 0	1 0	2 5	8 5						0 5 0 0 0								
OPERATING MODE (8)			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following: (11))																			
4			20 402 (b)				20 406 (c)				X				80 73 (a) (2) (iv)				73 71 (b)			
POWER LEVEL (10)			20 405 (a) (1) (i)				80 38 (a) (1) (i)								80 73 (a) (2) (iv)				73 71 (c)			
0 1 0 0			20 408 (a) (1) (i)				80 38 (a) (2) (i)								80 73 (a) (2) (iv)				OTHER (Specify in Abstract Below and in Text: NRC Form 308A)			
			20 408 (a) (1) (i)				X				80 73 (a) (2) (i)				80 73 (a) (2) (iv) (A)							
			20 408 (a) (1) (i)				80 73 (a) (2) (i)								80 73 (a) (2) (iv) (B)							
			20 408 (a) (1) (i)				X				80 73 (a) (2) (i)				80 73 (a) (2) (iv)							
LICENSEE CONTACT FOR THIS LER (12)																						
NAME Robert W. Grunseich, Operational Compliance Engineer										TELEPHONE NUMBER AREA CODE 5 1 6 9 2 9 - 8 3 0 0												
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)										EXPECTED SUBMISSION DATE (15)												
YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>										MONTH DAY YEAR												
YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>																						
ABSTRACT (16) (Limit to 1400 spaces. If appropriate, fifteen single space typewritten lines.)																						
<p>On September 25, 1985, at 0915 an unusual event was declared because the "B" loop of the low pressure coolant injection (LPCI) system of the Residual Heat Removal (RHR) system was declared inoperable while the High Pressure Cooling Injection (HPCI) system was out of service due to testing. At that time the plant was in Operational Condition 2 with the RPV pressure at 910 psig and power level at 1.3%. This condition resulted in the plant operating in a condition not in full compliance with Tech. Spec. 3.5.1 per 10CFR50.73 (a)(2)(i). A reactor shutdown was commenced at 0930 in accordance with Tech. Spec. 3.0.3. The LPCI system was declared inoperable because of the failure of the RHR pump minimum flow control valve 1E11-MOV-045B. The failure of the minimum flow valve was discovered when the valve received a signal to move with no commensurate change in system flow. The system was walked down to determine the cause of the problem. The minimum flow control valve experienced fatigue failure of the mounting bolts of the Limitorque operator to the valve yoke. It is suspected that this was most probably caused by valve vibration due to cavitation in the suppression pool test return line. At 1058 the testing on the HPCI system was completed and the system was returned to service. The unusual event was terminated at 1120. At 1230, reactor shutdown was terminated and RPV pressure was increased to 920 psig. Plant Management was notified of the event and the NRC was notified per 10CFR50.72 at 0957. Studies are being performed to verify the failure mechanism of the bolts and to eliminate the valve cavitation in the RHR system. A supplemental report will be forthcoming once a solution has been identified.</p>																						

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES 8/31/95

FACILITY NAME (1) Shoreham Nuclear Power Station Unit #1	DOCKET NUMBER (2) 0500032285	LER NUMBER (6)			PAGE (3) 02 OF 03
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
		04	5	0	

TEXT IF MORE SPACE IS REQUIRED USE ADDITIONAL NRC Form 366A (17)

On September 25, 1985 at 0915 an unusual event was declared because the "B" loop of the Low Pressure Coolant Injection (LPCI) system of the Residual Heat Removal (RHR) system was declared inoperable while the High Pressure Cooling Injection (HPCI) system was out of service due to testing. The plant was in Operational Condition 2 with the RPV pressure at 910 psig and power level at 1.3%. This condition resulted in the plant operating in a condition not in full compliance with Technical Specification 3.5.1 per 10CFR50.73 (a)(2)(i).

The problem with the RHR pump minimum flow control valve was discovered when the valve received a signal to move with no commensurate change in system flow. The system was then walked down to determine the cause of the problem. The "B" Loop of the LPCI system was declared inoperable because the valve operator on the RHR pump minimum flow control valve for the "B" loop of the RHR system (1E11*MOV-045B) had failed due to its mounting bolts being sheared off. The bolts had sheared off due to fatigue failure most probably resulting from valve vibration due to cavitation in the suppression pool test return line. The valve was declared inoperable, therefore making the "B" loop of the LPCI system inoperable. Since Technical Specification 3.5.1 requires the HPCI system to be operable if a loop of the LPCI system is determined to be inoperable an applicable action statement could not be met. Therefore, Technical Specification 3.0.3 was applicable and at 0930 a reactor shutdown was commenced. At 1058 testing on the HPCI system was completed and the system was placed back into service. At 1128 the unusual event was terminated. A reactor shutdown was never completed and at 1230 operators started to increase the reactor pressure back to 920 psig. The operators carried out all required actions. Plant management was notified of the event and the NRC was notified per 10CFR50.72 at 0957.

The safety significance of this event was minimal due to the fact that all other ECCS systems were available and could have been activated if required.

A Maintenance Work Request (MWR) was generated to replace the bolts and repair the valve. On September 26, 1985 at 0500, the valve was repaired and placed back into service and the "B" loop of LPCI was declared operable. At 0525, the plant was placed in Operational Condition 4. MWRs were generated to inspect all the motor operated valves in the ECCS systems. As a result of the inspection, nine (9) additional valves in the RHR system were found to have loose operator mounting bolts. All the operator bolts were removed and replaced and the nine valves were repaired by October 2, 1985. Plant startup commenced on October 3, 1985 at 0227.

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U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO 3150-0104

EXPIRES 8/31/85

FACILITY NAME (1): Shoreham Nuclear Power Station Unit #1	DOCKET NUMBER (2): 05000322	LER NUMBER (6):			PAGE (3):		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		85	045	000	3	OF	03

TEXT (If more space is required, use additional NRC Form 366A p. 117)

Preliminary studies have concluded that system vibrations, due to cavitation, have contributed to the bolts failures. Flow tests will be performed on the RHR system in order to reduce or eliminate the cavitation. The sheared bolts are being independently analyzed to verify the failure mechanism. A supplemental report will be forthcoming once a solution has been identified.



LONG ISLAND LIGHTING COMPANY

SHOREHAM NUCLEAR POWER STATION • P.O. BOX 628 • WADING RIVER, NEW YORK 11792

TEL: (516) 929-8300

October 25, 1985

PM-85-234

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

Dear Sir:

In accordance with 10CFR50.73, enclosed is a copy of Shoreham Nuclear Power Station Unit 1's Licensee Event Report 85-045.

Sincerely yours,

William E. Steiger, Jr.
Plant Manager

WES/gr

Enclosure

cc: Dr. Thomas E. Murley, Regional Administrator
John Berry, Senior Resident Inspector
Institute of Nuclear Power Operations, Records Center
American Nuclear Insurers

SR.A21.0200

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