

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)
Shoreham Nuclear Power Station Unit #1

DOCKET NUMBER (2)

05000322

PAGE (3)

1 OF 03

TITLE (4)

RPS Manual Initiation due to loss of Instrument Air

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	8	3	1	8	5	0	3	5		050000
0	8	3	1	8	5	0	0	9		050000

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following): (11)									
2		20.402(b)		20.406(c)	X	80.73(a)(2)(iv)		73.71(b)			
POWER LEVEL (10)	0.1011	20.406(a)(1)(i)		80.36(a)(1)		80.73(a)(2)(v)		73.71(c)			
		20.406(a)(1)(ii)		80.36(a)(2)		80.73(a)(2)(vi)		OTHER (Specify in Abstract below and in Text, NRC Form 365A)			
		20.406(a)(1)(iii)		80.73(a)(2)(i)		80.73(a)(2)(vii)(A)					
		20.406(a)(1)(iv)		80.73(a)(2)(ii)		80.73(a)(2)(vii)(B)					
		20.406(a)(1)(v)		80.73(a)(2)(iii)		80.73(a)(2)(ix)					

LICENSEE CONTACT FOR THIS LER (12)
NAME
Gary G. Rhoads, Operational Compliance Engineer

TELEPHONE NUMBER

AREA CODE

516929-8300

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)	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 31, 1985 at 0332 A.M., the Operator manually initiated the Reactor Protection System (RPS) after having received a Scram Pilot Valve Air Header Pressure Low alarm and a Control Rod Drift alarm. The plant was in Operational Condition 2, with the Reactor Mode Switch in Startup and Reactor coolant temperature was at approximately 190 degrees F. Loss of instrument air pressure to the Scram Pilot Air Header was caused by clogging of the Instrument Air Dryer Afterfilter which resulted from improperly replaced desiccant in the dryer unit. The vendor manual was inadequate in that it did not clearly specify that an Aluminum Oxide buffer was to be layered in with the Silica Gel desiccant. At the time of the event the Reactor Mode Switch was placed in the Shutdown position, the trip was reset, and the plant Emergency Shutdown Procedure was performed. Plant Management was notified of the event and at approximately 0540 AM the NRC was notified per 10CFR50.72. To prevent recurrence, instructions will be generated to indicate proper desiccant replacement. The PM program will be reviewed to insure proper time cycle for change out and inspection of filters and strainers. Engineering will be requested to evaluate the need for differential pressure gauges on filters and dryer towers to allow for troubleshooting.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Shoreham Nuclear Power Station Unit #1	05000322	85	035	000	2	OF	3

TEXT (If more space is required, use additional NRC Form 286A 2/117)

On August 31, 1985 at 0332 A.M., the Operator manually initiated the Reactor Protection System (RPS) after having received a Scram Pilot Valve Air Header Pressure Low alarm and a Control Rod Drift alarm. The plant was in Operational Condition 2, with the Reactor Mode Switch in Startup and Reactor coolant temperature at approximately 190 degrees F.

During the two days prior to the event, maintenance personnel had been performing a series of corrective maintenance activities on the instrument air dryers in response to a chronic low pressure condition in the instrument air system. The Silica Gel desiccant in the instrument air dryer towers was replaced, but Aluminum Oxide buffer pellets, which should have been layered in with the replacement Silica Gel, were erroneously omitted. The vendor manual was inadequate in that it did not clearly specify that the Aluminum Oxide buffer was to be layered in with the Silica Gel desiccant or the correct level to which the dryer towers were to be filled. When the instrument air dryer was returned to service at approximately 0200 A.M. on 8/31/85, the Silica Gel desiccant began to expand, carrying over into the screens and afterfilters downstream from the dryer. As the screens and afterfilters gradually became plugged, instrument air system pressure began to fall off. At 0330 A.M. on 8/31/85, the Operator received a Scram Pilot Valve Air Header Pressure Low alarm due to the decreasing instrument air system pressure supplying the Scram Pilot Air Header. This caused the individual Hydraulic Control Unit (HCU) Pilot Scram Valves supplied from the header to begin to unseat and allowed the associated Scram Valves to open. The affected associated control rods began to drift, and at 0332 A.M. on 8/31/85, the Operator received the Control Rod Drift alarm. He proceeded to initiate the RPS and placed the mode switch in Shutdown. The Trip was reset and the Emergency Shutdown procedure was performed.

Plant Management was notified of the event and at approximately 0540 a.m. the NRC was notified per 10CFR50.72. There was no safety significance to the event. No ECCS systems were challenged or required for the event. The operators carried out all required actions.

After the event, the Silica Gel was removed and replaced with proper amounts of buffer and Silica Gel. After this was completed, the dryers were put back into service.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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) 0500032285	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		03	5	0	0	3	OF 03

TEXT (If more space is required, use additional NRC Form 306A's) (17)

To prevent recurrence, the following actions will be taken:

- 1) Instructions indicating the proper amount of buffer and Silica Gel desiccant to be used in the instrument air dryer towers will be identified on tags which are to be placed on each dryer tower and on the dryer inlet.
- 2) The Preventive Maintenance (PM) Program will be reviewed to assure that Silica Gel filters and strainers are on the proper time cycle for change out and inspection.
- 3) Engineering will be requested to evaluate the need for local differential pressure gauges on the pre- and after filters and the dryer towers to allow troubleshooting and trending so that the PM Program can be further refined.



LONG ISLAND LIGHTING COMPANY

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September 6, 1985

PM-85-211

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 85-035.

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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