

The Light company

Houston Lighting & Power

P.O. Box 1700 Houston, Texas 77001 (713) 228-9211

February 12, 1990
ST-HL-AE- 3372
File No.: G26
10CFR50.73

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

South Texas Project Electric Generating Station
Unit 2
Docket No. STN 50-499
Licensee Event Report 90-001 Regarding
An Unplanned Engineered Safety Features
Actuation During the Performance of A Surveillance Test

Pursuant to 10CFR50.73, Houston Lighting & Power Company (HL&P) submits the attached Licensee Event Report (LER 90-001) regarding an unplanned Engineered Safety Features actuation during the performance of a surveillance test. This event did not have any adverse impact on the health and safety of the public.

If you should have any questions on this matter, please contact Mr. C. A. Ayala at (512) 972-8628 or myself at (512) 972-7921.

G.E. Vaughn
G. E. Vaughn by *Walter H. King*
Vice President
Nuclear Operations

GEV/BEM/n1

Attachment: LER 90-001 (South Texas, Unit 2)

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NL.LER90001.U2 A Subsidiary of Houston Industries Incorporated

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Houston Lighting & Power Company
South Texas Project Electric Generating Station

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Revised 12/15/89

L4/NRC/

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) South Texas, Unit 2 DOCKET NUMBER (2) 050004999 PAGE (3) 1 OF 03

TITLE (4) An Unplanned Engineered Safety Features Actuation During The Performance of a Surveillance Test

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)
01	08	90	90	001	00	02	12	90			050000

OPERATING MODE (9)	POWER LEVEL (10)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)																																							
5	0100	<table border="1"><tr><td>20.402(b)</td><td>20.405(c)</td><td>X</td><td>50.73(a)(2)(iv)</td><td>73.71(b)</td></tr><tr><td>20.405(a)(1)(i)</td><td>50.36(c)(1)</td><td></td><td>50.73(a)(2)(v)</td><td>73.71(c)</td></tr><tr><td>20.405(a)(1)(ii)</td><td>50.36(c)(2)</td><td></td><td>50.73(a)(2)(vi)</td><td></td></tr><tr><td>20.405(a)(1)(iii)</td><td>50.73(a)(2)(i)</td><td></td><td>50.73(a)(2)(viii)(A)</td><td>OTHER (Specify in Abstract below and in Text, NRC Form 366A)</td></tr><tr><td>20.405(a)(1)(iv)</td><td>50.73(a)(2)(ii)</td><td></td><td>50.73(a)(2)(viii)(B)</td><td></td></tr><tr><td>20.405(a)(1)(v)</td><td>50.73(a)(2)(iii)</td><td></td><td>50.73(a)(2)(x)</td><td></td></tr></table>										20.402(b)	20.405(c)	X	50.73(a)(2)(iv)	73.71(b)	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)(vi)		20.405(a)(1)(iii)	50.73(a)(2)(i)		50.73(a)(2)(viii)(A)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)	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)	
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LICENSEE CONTACT FOR THIS LER (12)
NAME Charles Ayala - Supervising Licensing Engineer TELEPHONE NUMBER 5112 91712186218
AREA CODE

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)

On January 8, 1990, Unit 2 was in Mode 5. A functional test of the Solid State Protection System Train R was being performed to satisfy Technical Specifications. At 0202 hours, as required by the test procedures, a Hot License trainee, under the direction of a licensed operator, placed the Train S "Low Steam Line Pressure" blocking handswitch in the "Block" position and released it. The spring return action of the handswitch caused it to pass through the neutral position to the "Unblock" position. This caused a low steam line pressure actuation of the Safety Injection System. The Engineered Safety Features equipment which was not disabled for the outage actuated as expected. No unexpected transients were observed. This characteristic of the spring return switches was identified during the pre-license Control Room Design Review; however, required training of operators in this characteristic was not implemented. Hot License and requalification training will be modified to include instruction on manipulation of spring return switches. A memorandum has been issued to operations personnel regarding this event. Other training requirements identified during the Control Room Design Review will be reviewed to ensure that they were incorporated in the training program. A further assessment of the use of spring return switches will be performed.

NL.LER90001.U2

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED JME NO. 3150-0104

EXPIRES 6/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
South Texas, Unit 2	056004999	90	001	00	02	OF	03

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

DESCRIPTION OF EVENT:

On January 8, 1990, Unit 2 was in Mode 5. A functional test of the Solid State Protection System Train R was being performed to satisfy Technical Specification requirements by a Hot License Trainee under the direction of a licensed operator. The test requires the actuation of various manual block switches. At 0202 hours, as required by the test procedure, the trainee placed the Train S "Low Steam Line Pressure" handswitch in the "Block" position and released it. The spring return action of the handswitch caused it to pass through the neutral position to the "Unblock" position. Since the unit was in Mode 5, no steam line pressure was present and a low system line pressure actuation of the Safety Injection System occurred. Standby Diesel Generators 21 and 23 started as expected. The remaining major Engineered Safety Features equipment was disabled for the outage and did not actuate. This actuation did not result in any unexpected transients. The NRC was notified at 0313 hours.

The potential for accidental actuation of spring return switches in this manner was identified in the pre-license Control Room Design Review. The review concluded that after a quick release of certain spring return switches manufactured by Micro Switch and General Electric, the switches may go past the center position and make up the contacts for the opposite position. The resolution of this finding was to provide training to ensure that operators do not use a quick release technique. However, no specific training was provided. Switches which exhibit the same characteristics are installed on the plant simulator.

CAUSE OF EVENT:

The cause of this event was the failure to provide adequate prerequisite instruction in the manipulation of spring return switches during licensed operator training. The training Job Task Analysis did not identify the potential for misoperation of the switches. A contributing factor was that no program existed to ensure that procedural and training modifications were completed which were identified during the Control Room Design Review. Hardware changes were controlled by the design change control process.

ANALYSIS OF EVENT:

Unplanned actuation of an Engineered Safety Features is reportable pursuant to 10CFR50.73(a)(2)(iv). The plant was in Mode 5 at the time of this event. All safety related equipment which was in service actuated as required. The safety injection pumps were removed from service; therefore, no injection to the Reactor Coolant System occurred.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
South Texas, Unit 2	0500049990	—	001	—	00	03	OF 03

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

CORRECTIVE ACTION:

The following corrective actions are being taken as a result of this event:

1. A memorandum has been issued to operations personnel discussing this event and emphasizing the use of positive control when manipulating spring return type switches.
2. This event will be reviewed with the current Hot License Class prior to their returning to control room training. This action will be completed by March 24, 1990.
3. The Hot License training program will be modified to include an objective for proper operation of spring return switches. The program modification will include information from this event and will be a prerequisite to control room training. This action will be completed by November 15, 1990.
4. A discussion of this event will be included in lessons learned training for licensed operators during requalification to emphasize the consequences of using the quick release method when operating control switches. This action will be completed by May 26, 1990.
5. Training and procedural modifications identified during the Control Room Design Review will be reviewed to ensure that they were incorporated into plant procedures and training. This action will be completed by May 1, 1990.
6. A survey of licensed operators will be performed to identify other additional knowledge items which operators may feel should be included in the Job Task Analysis. This action will be completed by May 26, 1990.
7. In addition to the above corrective actions, a further assessment of the use of spring return switches and the feasibility of replacement will be performed. This action will be completed by September 15, 1990.

ADDITIONAL INFORMATION:

There have been no previous events reported regarding spurious actuations of Engineered Safety Features due to misoperation of a spring return switch.

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