

# The Light company

Houston Lighting & Power

South Texas Project Electric Generating Station P. O. Box 289 Wadsworth, Texas 77483

June 19, 1992  
ST-HL-AE-4124  
File No.: G26  
10CFR50.73

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

South Texas Project  
Unit 2  
Docket No. STN 50-497  
Licensee Event Report 92-006  
Unplanned ESF Actuation of the Component Cooling  
Water Outlet Valve from the RHR Heat Exchanger 2C

Pursuant to 10CFR50.73, Houston Lighting & Power (HL&P) submits the attached Licensee Event Report 92-006 regarding an unplanned Engineered Safety Feature (ESF) actuation of a Component Cooling Water outlet valve from the Residual Heat Removal (RHR) Heat Exchanger 2C. This event did not have 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 me at (512) 972-7205.

*William J. Jump*  
William J. Jump  
Manager,  
Nuclear Licensing

JMP/ag

Attachment: LER 92-006 (South Texas, Unit 2)

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A Subsidiary of Houston Industries Incorporated

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Houston Lighting & Power Company  
South Texas Project Electric Generating Station

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cc:

Regional Administrator, Region IV  
Nuclear Regulatory Commission  
611 Ryan Plaza Drive, Suite 400  
Arlington, TX 76011

George Dick, Project Manager  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

J. I. Tapia  
Senior Resident Inspector  
c/o U. S. Nuclear Regulatory  
Commission  
P. O. Box 910  
Bay City, TX 77414

J. R. Newman, Esquire  
Newman & Holtzinger, P.C.  
1615 L Street, N.W.  
Washington, DC 20036

D. E. Ward/T. M. Puckett  
Central Power and Light Company  
P. O. Box 2121  
Corpus Christi, TX 78403

J. C. Lanier/M. B. Lee  
City of Austin  
Electric Utility Department  
P.O. Box 1088  
Austin, TX 78767

K. J. Fiedler/M. T. Hardt  
City Public Service Board  
P. O. Box 1771  
San Antonio, TX 78296

Rufus S. Scott  
Associate General Counsel  
Houston Lighting & Power Company  
P. O. Box 61867  
Houston, TX 77208

INPO  
Records Center  
1100 Circle 75 Parkway  
Atlanta, GA 30339-3064

Dr. Joseph M. Hendrie  
50 Bellport Lane  
Bellport, NY 11713

D. K. Lacker  
Bureau of Radiation Control  
Texas Department of Health  
1100 West 49th Street  
Austin, TX 78756-3189

Revised 10/11/91

L4/NRC/

## LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (F-630), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

South Texas, Unit 2

DOCKET NUMBER (2)

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PAGE (3)

TITLE (4) Unplanned ESF Actuation of the Component Cooling  
Water Outlet Valve from the RHR Heat Exchanger 2C

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	5	2	9	2	0	0	6	1	9	9	2
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											0 5 0 0 0

OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 50 (Check one or more of the following) (11)
1	20.402(b) 20.406(c) 50.73(a)(2)(iv) 73.71(b)
POWER LEVEL (10) 1 0 0	20.405(a)(1)(i) 50.38(a)(1) 50.73(a)(2)(v) 73.71(c)
	20.405(a)(1)(ii) 50.38(a)(2) 50.73(a)(2)(vi) OTHER (Specify in Abstract Below and in Text, NRC Form 366A)
	20.405(a)(1)(iii) 50.73(a)(2)(i) 50.73(a)(2)(vii)(A)
	20.405(a)(1)(iv) 50.73(a)(2)(ii) 50.73(a)(2)(vii)(B)
	20.405(a)(1)(v) 50.73(a)(2)(iii) 50.73(a)(2)(x)

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
Charles Ayala - Supervising Licensing Engineer	5 1 2 9 7 2 - 8 6 2 8

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
X	B	I	F	S	V				
			F	1	3	0	Yes		

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
<input checked="" type="checkbox"/>	<input type="checkbox"/>				

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

On May 22, 1992, Unit 2 was in Mode 1 at 100%, when the Component Cooling Water (CCW) outlet valve from Residual Heat Removal Heat Exchanger 2C opened for no apparent reason. As a result, CCW header pressure decreased and CCW Pump 2A automatically started due to the transient. The cause of this event is not known at this time. Plant operators performed a visual inspection of the valve and stroked the valve with no adverse findings. Additionally, the operators satisfactorily tested the function of the slave relays and the valve response. The most likely cause of this event is a loss of power to the solenoid valve since no leaks were detected and the valve stroked satisfactorily. Additional troubleshooting would not result in a conclusive cause of the event, therefore, no additional corrective actions are necessary.

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LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

DOCKET NUMBER (2)

LER NUMBER (8)

PAGE (3)

South Texas, Unit 2

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

DESCRIPTION OF EVENT:

On May 22, 1992, Unit 2 was in Mode 1 at 100% power. At approximately 0713 hours, the Component Cooling Water (CCW) outlet valve from Residual Heat Removal (RHR) Heat Exchanger 2C opened for no apparent reason. As a result, CCW header pressure decreased which caused alarms at Reactor Coolant Pump 2D motor bearing flow and air cooler flow. Subsequently, CCW Pump 2A automatically started (as designed) due to the transient. Plant operators closed the CCW valve to determine whether the event would occur again. The valve remained closed. This event was reported to the NRC as an Engineered Safety Feature (ESF) actuation on May 22, 1992, at 2001 hours EDT.

The CCW outlet valve is a normally closed six inch Fisher Control Valve which isolates CCW from RHR Heat Exchanger 2C. The valve will open on a Safety Injection (SI) signal or on a simultaneous CCW Pump 2C running and a CCW Surge Tank 2A level below its setpoint. No SI signal was present or required and the CCW Surge Tank 2A level was steady above the minimum setpoint during this event.

At 1035 hours, plant operators cycled the CCW outlet valve in accordance with the Component Cooling Water System Train 2C Valve Operability Test procedure. The valve cycled in both directions within the acceptable limit. Plant operators performed a visual inspection of the valve and found no apparent abnormal conditions.

On May 23, 1992, at approximately 0228 hours, plant operations performed the Solid State Protection System (SSPS) Actuation Train C Slave Relay test, which includes testing the function of relays associated with Safety Injection for the CCW outlet valve. The test was completed satisfactorily at 0408 hours.

LER\92162001.02

ESTIMATED BUDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BUREAU ESTIMATE TO THE RECORDS AND REPORTS MANAGER, BRANCH (P-330), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

TEXT: If more space is required, use additional NRC Form 305-A's. (17)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-520), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20585, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)										LER NUMBER (6)						PAGE (3)					
											YEAR	SEQUENTIAL NUMBER			REVISION NUMBER							
South Texas, Unit 2	0	5	0	0	0	4	9	9	9	2	—	0	0	6	—	0	0	0	4	OF	0	4

TEXT (If more space is required, use additional NRC Form 395A's) (17)

The CCW outlet valve from the RHR Heat Exchanger 2C isolation valve (C2CCFV4565) opened for no apparent reason allowing CCW flow into the RHR Heat Exchanger 2C. This position is the valve's ZSF actuation position upon a safety injection signal. Had an emergency situation occurred during this event the valve would have already been in its safe mode. Should the problem reappear, the consequence would be that an unanticipated actuation to the safe mode would occur. The failure of this component will not interfere with the system performing its design safety function.

1. Plant operators have performed a visual inspection of the valve for air leaks and loose leads and stroked the valve with no adverse findings.
2. Plant operators tested the function of the slave relays and the valve response. These relays were found to be within acceptable limits.
3. Licensing has reemphasized to Operations Management the reportability guidelines for ESF actuations.

No component failures occurred during this event or were discovered during this event. One previous event has been reported, LER 90-002 (Unit 1), regarding an unplanned ESF actuation.

The CCW outlet valve is a six inch Fisher butterfly valve type 7610 with a Fisher diaphragm actuator.