

The Light company

Houston Lighting & Power South Texas Project Electric Generating Station P. O. Box 289 Wadsworth, Texas 77483

March 23, 1993

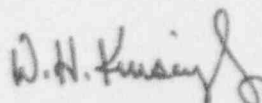
ST-HL-AE-4370
File No.: G26
10CFR50.73

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

South Texas Project
Unit 2
Docket No. STN 50-499
Revision 2 to Licensee Event Report 92-005
Containment Ventilation Isolation Actuation Due to a
Failure in the RM-23A Module

Pursuant to 10CFR50.73, Houston Lighting & Power Company (HL&P) submits the attached revision to Licensee Event Report 92-005 regarding a Containment Ventilation Isolation Actuation due to a failure in the RM-23A module. This event did not result in an adverse impact on the health and safety of the public.

If you should have any questions on this matter, please contact Mr. J. M. Pinzon at (512) 972-8027 or me at (512) 972-7921.



W. H. Kinsey, Jr.
Vice President,
Nuclear Generation

MKJ/pla

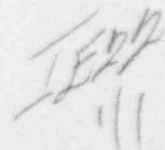
Attachment: LER 92-005 Revision 2 (South Texas, Unit 2)

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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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C:

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LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (IMRB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, 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)

05000

499

PAGE (3)

1 OF 04

TITLE (4)

Containment Ventilation Isolation Actuation
Due to a Failure in the RM-23A Module.

EVENT DATE (5)			LER NUMBER (6)			REPORT NUMBER (7)			OTHER FACILITIES INVOLVED (8)											
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER										
0	5	0	8	9	2	9	2	0	0	5	0	2	0	3	2	3	9	3		05000
OPERATING MODE (9)		1		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)																
POWER LEVEL (10)		100		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)(vii) OTHER																
				20.405(a)(1)(iii) 50.73(a)(2)(i) 50.73(a)(2)(viii)(A) (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)																

LICENSEE CONTACT FOR THIS LER (12)

NAME

Jairo Pinzon - Senior Engineer

TELEPHONE NUMBER (Include Area Code)

(5 1 2) 9 7 2 - 8 0 2 7

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	I	L	M	O	N	G	O	6	3	YES										

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)	X	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
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ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On May 8, 1992, Unit 2 was in Mode 1 at 100% power. At approximately 1324 hours, a Containment Ventilation Isolation (CVI) actuation occurred. Operations personnel verified that all equipment actuated as designed. The radiation monitoring system did not indicate any high radiation conditions. Further investigation has revealed that the Containment Ventilation Isolation actuation was the result of an equipment failure. Troubleshooting of the suspect RM-23A module and maintenance history evaluations have been performed. A review and analysis of radiation monitoring related Engineered Safety Feature (ESF) actuations due to unknown causes has been completed.

LICENSEE EVENT REPORT (LER)

TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, 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)
South Texas, Unit 2	05000 499	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	02 OF 04
		9 2	0 0 5	0 2	

TEXT (if more space is required, use additional copies of NRC Form 366A) (17)

DESCRIPTION OF EVENT:

On May 8, 1992, Unit 2 was in Mode 1 at 100% power. At approximately 1324 hours a Containment Ventilation Isolation (CVI) actuation occurred. Operations personnel verified that all equipment actuated as designed. The NRC was notified pursuant to 10CFR50.72 at 1445 hours.

Safety related radiation monitors have control and display functions contained within individual RM-23A modules located in the control room ZCP-023 cabinet. Each RM-23A module is a microprocessor based unit that processes data from an individual radiation monitor. The RM-23A module generates the actuation signal for radiation monitors associated with Engineered Safety Features.

Technicians were at the radiation monitor panel (ZCP-023) performing an operability test on one of the two Spent Fuel Pool Exhaust Monitors (RT-8035) for the Fuel Handling Building, when the Shift Supervisor informed them that radiation monitor RI-8012B's upper digital display was blank, the error light was flashing and a CVI actuation had occurred. RT-8012 is one of the two radiation monitors for the Containment Purge System.

The RM-23A module (RI-8012B) associated with the RT-8012 radiation monitor was replaced. The redundant radiation monitor RI-8013 was verified to have normal radiation levels.

HL&P has completed the analysis of actuations within the radiation monitoring system due to unknown failures that occurred between August 1987 to December 31, 1992. During this time frame, there were ten actuations attributed to unknown failures. Two separate equipment problems were discovered that appear to explain some of the actuations due to unknown failures. A thermographic scan of the ZCP-023 cabinet for Unit 1 discovered high resistance connections within the cabinet. This problem was corrected and since that time there have been no unexplained actuations in Unit 1. A twisted Nuclear Instrumentation Module (NIM) bin exists in the Unit 2 ZCP-023 cabinet in which the "A" train RA ESF channel remote control modules are mounted. The twisted NIM bin will be repaired.

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LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 80.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, 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	05000 499	9 2	0 0 5	0 2	03 OF 04

TEXT (If more space is required, use additional copies of NRC Form 365A) (17)

DESCRIPTION OF EVENT: (Con't)

This discovery and further investigation has lead to the recategorization of six actuations previously categorized as unknown failures. (One due to personnel error, and five due to equipment problems.) Four actuations remain categorized as unknown failures.

CAUSE OF EVENT:

The Engineered Safety Features Containment Ventilation Isolation actuation is the result of an equipment failure.

ANALYSIS OF EVENT:

As of the date of this event, unplanned actuation of an Engineered Safety Feature was reportable pursuant to 10CFR50.73(a)(2)(iv). Effective October 13, 1992, 10CFR50.72 and 50.73 were revised to eliminate reporting of invalid actuations of the Containment Ventilation Isolation system. As such, this event would no longer be reportable under the existing rules since this was a spurious actuation which is considered to be invalid per the revised rulemaking. All ESF equipment actuated as designed. No evidence of high radiation was found. While any unnecessary challenge to an Engineered Safety Feature is undesirable, actuation of Containment Ventilation Isolation represents a minimal hazard since it could not cause, worsen, or prevent mitigation of any accident.

CORRECTIVE ACTIONS:

The following corrective actions have been taken as a result of this event:

1. The RM-23A module associated with the RI-8012B monitor was replaced.
2. Testing of the RI-8012B module to determine a cause for the failure has been completed. There were no additional failures noted for the RI-8012B module during the time the module was set up for testing.

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LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, 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	05000 499	9 2	0 0 5	0 2	04 OF 04

TEXT (if more space is required, use additional copies of NRC Form 366A) (17)

CORRECTIVE ACTIONS: (Con't)

3. The twisted NIM bin for Unit 2 will be repaired during the current refueling outage for Unit 2.

ADDITIONAL INFORMATION:

The radiation monitor is model number RM23A and is manufactured by General Atomics.

Several other events have been documented in regards to Engineered Safety Features actuation as a result of spurious actuations of the radiation monitoring system. At the time of this event, there have been no ESF actuations in either unit, with the exception of the Reactor Protection System as a result of reactor trips, since July 7, 1991. Within the past few months there have been several Engineered Safety Feature actuations. Since the time of this event, a Trip/ESF Actuation Prevention Task Force has been initiated.