

The Light company

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

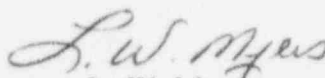
August 30, 1995
ST-HL-AE-5162
File No.: G26
10CFR50.73

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

South Texas Project
Unit 1
Docket No. STN 50-498
Licensee Event Report 95-008
Inoperable Reactor Coolant System Flow Instrument

Pursuant to 10CFR50.73, Houston Lighting & Power submits the attached Unit 1 Licensee Event Report 95-008, regarding an inoperable Reactor Coolant System flow instrument. This event did not have an adverse effect on the health and safety of the public.

If you should have any questions on this matter, please contact Mr. D. B. Schulker at (512) 972-8517 or me at (512) 972-7239.



L. W. Myers
Unit 1,
Plant Manager

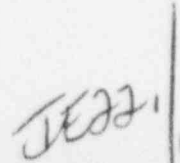
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Attachment: LER 95-008 (South Texas, Unit 1)

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LER-95\1-9508RO.LER Project Manager on Behalf of the Participants in the South Texas Project

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Houston Lighting & Power Company
South Texas Project Electric Generating Station

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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 (MNRB 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 1	DOCKET NUMBER (2) 05000 498	PAGE (3) 1 OF 4
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TITLE (4) Inoperable Reactor Coolant System Flow Instrument

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 NAME	DOCKET NUMBER
07	28	95	95	-- 008 --	00	08	30	95	FACILITY NAME	DOCKET NUMBER
										05000
										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	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(c)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)					
		<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 50.36(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)					
		<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)	<input type="checkbox"/> OTHER					
		<input type="checkbox"/> 20.405(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	(Specify in Abstract below and in Text, NRC Form 366A)					
		<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)						
		<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(x)						

LICENSEE CONTACT FOR THIS LER (12)

NAME David Schulker - Consulting Engineering Specialist	TELEPHONE NUMBER (Include Area Code) (512) 972-8517
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
X	AB	FT	I204	N					

SUPPLEMENTAL REPORT EXPECTED (14)	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE).	<input checked="" type="checkbox"/> NO			

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On July 28, 1995, at approximately 1300 hours, Unit 1 was in Mode 1 at 100% power, when it was determined Reactor Coolant System loop D channel 1 flow instrument (FT0447) was indicating greater than 3% higher than the other two instruments in that loop. The Unit Supervisor declared the affected channel inoperable, and in accordance with the requirements of Technical Specification 3.3.1, Action 6, at 1457 hours, the associated Reactor Coolant System low flow bistable was placed in the tripped condition. On July 31, 1995, a review of historical data from the Emergency Response Facility Data Acquisition and Display (ERFDAD) computer was conducted. This review revealed that FT0447 exceeded the total allowance limit on July 27, 1995, at approximately 2225 hours, thereby rendering the channel technically inoperable. Since the inoperable channel was not placed in the tripped condition within six hours, non-compliance with Technical Specification 3.3.1, Action 6, existed. The observed channel drift on FT0447 was apparently the result of a flat spot that had developed over a period of time on the zero potentiometer for the transmitter. The affected channel was recalibrated and returned to service on August 3, 1995 at 0902 hours.

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 (MNRB 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 1	05000 498	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 4
		95	-- 008 --	00	

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

DESCRIPTION OF EVENT:

On July 28, 1995, at approximately 1300 hours, Unit 1 was in Mode 1 at 100% power, when it was determined Reactor Coolant System loop D channel 1 flow instrument was indicating greater than 3% higher than the other two instruments in that loop. This determination was made during the performance of the Operator Logs procedure. The Unit Supervisor declared FT0447 inoperable, and in accordance with the requirements of Technical Specification 3.3.1, Action 6, at 1457 hours, the associated Reactor Coolant System low flow bistable was placed in the tripped condition.

Reactor Coolant System flow readings are recorded every eight hours in accordance with the Operator Logs procedure, in order to meet the shift (every twelve hours) channel check requirements of Technical Specification 4.3.1.1. The criteria established in the Operator Logs procedure is all three channels in each loop indicate within 3% of one another.

The operating crew reviewed the previous operator log readings, taken on July 28, 1995, between 0400 and 0600 hours, and recognized FT0447 was recorded to be greater than 3% higher than the other two instruments in that loop. However, no notation had been made regarding the channel not meeting the criteria of the Operator Logs procedure.

The Reactor Operator and Unit Supervisor responsible for the July 28, 1995, 0400 to 0600 log readings, both had performed mental estimations of the FT0447 value with respect to the other channels, but failed to calculate the maximum difference. As a result, neither individual identified FT0447 was greater than 3% higher than the other two channels in loop D, contrary to the criteria in the Operator Logs procedure.

Since the July 28, 1995, 0400 to 0600 hour recorded value for FT0447 was greater than 3% higher than the other two instruments in that loop, and no action had been taken, an engineering review was conducted. This review was to determine if the July 28, 1995, 0400 to 0600 hour recorded value for FT0447 was of sufficient magnitude that the channel was inoperable at that time. The review revealed FT0447 was, in fact, within the total allowance limit for Reactor Coolant System flow, and hence operable. However, as part of the engineering review, on July 31, 1995, a review of historical data obtained from the Emergency Response Facility Data Acquisition and Display (ERFDAD) computer was conducted. This review revealed that FT0447 had failed on July 27, 1995, at approximately 2225 hours, as it exceeded the total allowance limit for Reactor Coolant System flow. Therefore, failure to place the associated bistable in the tripped condition by 0425 hours on July 28, 1995, resulted in non-compliance with Technical Specification 3.3.1, Action 6.

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

Instrumentation and Control personnel successfully recalibrated the affected transmitter and the channel was returned to service on August 3, 1995 at 0902 hours.

CAUSE OF EVENT:

The observed channel drift on FT0447 was apparently the result of a flat spot that had developed over a period of time on the zero potentiometer for the transmitter.

Failure by the Reactor Operator and Unit Supervisor to identify FT0447 had exceeded the criteria established in the Operator Logs procedure was the result of improper task performance in that the necessary subtraction was not performed.

EVENT ANALYSIS:

Non-compliance with Technical Specification 3.3.1, Action 6 is reportable pursuant to 10CFR50.73(a)(2)(i)(B). This event did not adversely impact the safe operation of the plant, the safety of plant personnel, or the health and safety of the public. The Reactor Coolant System loop flow signal is used to generate a reactor trip signal if the flow degrades to a predetermined value. The logic required to generate a reactor trip signal (for the plant conditions at the time of the event) is two out of three channels in any one loop sensing low flow. Throughout the time when FT0447 was inoperable, and its associated Reactor Coolant System low flow bistable was not tripped, the two remaining loop D flow instruments were operable and capable of generating a reactor trip signal, if required. With the affected Reactor Coolant System low flow bistable in the tripped condition, either one of the remaining two flow channels in loop D sensing a low flow condition would result in a reactor trip.

CORRECTIVE ACTIONS:

The affected Reactor Coolant System flow transmitter was successfully recalibrated. The subject channel will continue to be monitored by the shift channel checks. If the transmitter fails another channel check, it will be replaced at that time and a root cause investigation will be conducted on the transmitter.

The Reactor Operator and Unit Supervisor who failed to identify FT0447 was indicating greater than 3% higher than the other two channels in loop D were counseled on management's expectations regarding operator logs.

A crew briefing item will be distributed to make other operators aware of this event. The brief will also discuss management expectations regarding the proper course of action in the event of a failed channel check.

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South Texas, Unit 1	05000 498	95	-- 008 --	00	4 OF 4

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

ADDITIONAL INFORMATION:

The transmitter that is the subject of this event is an ITT Barton Model 752 transmitter. A review of South Texas Project's equipment history and the Nuclear Plant Reliability Data System (NPRDS) did not reveal any similar events. It should be noted that NPRDS no longer reports cases where an instrument is out of tolerance and is subsequently recalibrated. Therefore, this event is not reportable to NPRDS.

South Texas Project is planning the implementation of an Instrument Calibration and Monitoring Program (ICMP). The ICMP is a computer program that will analyze data groups to verify the correlation of the data. The system will take data, such as process variable inputs that are redundantly measured, and verify the measurements correlate within a specified acceptance band. The system will also report any values not meeting established criteria. Using this process, we will be able to periodically analyze and evaluate the calibration of instruments on-line. This program, when fully implemented, will allow enhanced monitoring of redundant instrument channels, including Reactor Coolant System flow, and detecting anomalies.