

The Light company

Houston Lighting & Power

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

February 8, 1993

ST-HL-AE-4322

File No.: G26

10CFR50.73

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

South Texas Project
Unit 1

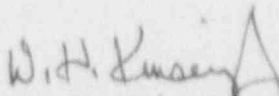
Docket No. STN 50-498

Licensee Event Report 93-002

Technical Specification 3.0.3 Entry due to Two Channels of
Power Range Nuclear Instrumentation Being Inoperable

Pursuant to 10CFR50.73, Houston Lighting & Power (HL&P) submits the attached Unit 1 Licensee Event Report 93-002 regarding a Technical Specification 3.0.3 entry due to two channels of Power Range Nuclear Instrumentation being inoperable. 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. C. A. Ayala at (512) 972-8628 or me at (512) 972-7921.


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

JMP/sr

Attachment: LER 93-002 (South Texas, Unit 1)

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LER193032001.V1

A Subsidiary of Houston Industries Incorporated

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Houston Lighting & Power Company
South Texas Project Electric Generating Station

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U.S. Nuclear Regulatory Comm.
Attn: Document Control Desk
Washington, D.C. 20555

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)										DOCKET NUMBER (2)										PAGE (3)					
South Texas, Unit 1										05000 498										1 OF 05					
TITLE (4)																									
Technical Specification 3.0.3 Entry due to Two Channels of Power Range Nuclear Instrumentation Being Inoperable																									
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										
															05000										
0	1	0	9	9	3	9	3		0	0	2	0	0	0	2	0	8	9	3	FACILITY NAME					
										DOCKET NUMBER															
										05000															
OPERATING MODE (9)		1		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 4: (Check one or more) (11)																					
POWER LEVEL (10)		74		20 402(b)				20 405(c)				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)				OTHER									
				20 405(a)(1)(iii)				X 50 73(a)(2)(i)				50 73(a)(2)(vii)(A)				Or - only in Abstract below and in Text, NRC Form 308A									
				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 (Include Area Code)															
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		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)																NO									
X																									

On January 9, 1993, at 0175 hours, Unit 1 was in Mode 1 at 74% power. A Technical Specification 3.0.3 condition was declared due to two channels of Power Range Nuclear Instrumentation (NI) being inoperable. The cause of this event was inadequate procedural guidance in that the calibration procedure did not specify the appropriate action to take if an NI channel is inoperable. Corrective action includes revising the channel calorimetric procedure to insure that appropriate actions are taken so that calorimetrics are performed for NIs being returned to service and performing a review to determine if other surveillance procedures could be susceptible to similar problems.

REQUIRED NUMBER OF DIGITS/CHARACTERS
FOR EACH BLOCK

BLOCK NUMBER	NUMBER OF DIGITS/CHARACTERS	TITLE
1	UP TO 46	FACILITY NAME
2	8 TOTAL 3 IN ADDITION TO 05000	DOCKET NUMBER
3	VARIES	PAGE NUMBER
4	UP TO 76	TITLE
5	6 TOTAL 2 PER BLOCK	EVENT DATE
6	7 TOTAL 2 FOR YEAR 3 FOR SEQUENTIAL NUMBER 2 FOR REVISION NUMBER	LER NUMBER
7	6 TOTAL 2 PER BLOCK	REPORT DATE
8	UP TO 18 - FACILITY NAME 8 TOTAL - DOCKET NUMBER 3 IN ADDITION TO 05000	OTHER FACILITIES INVOLVED
9	1	OPERATING MODE
10	3	POWER LEVEL
11	1 CHECK BOX THAT APPLIES	REQUIREMENTS OF 10 CFR
12	UP TO 50 FOR NAME 14 FOR TELEPHONE	LICENSEE CONTACT
13	CAUSE VARIES 2 FOR SYSTEM 4 FOR COMPONENT 4 FOR MANUFACTURER NPRDS VARIES	EACH COMPONENT FAILURE
14	1 CHECK BOX THAT APPLIES	SUPPLEMENTAL REPORT EXPECTED
15	6 TOTAL 2 PER BLOCK	EXPECTED SUBMISSION DATE

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 (MNB 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 (4)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
South Texas, Unit 1	05000 498	93	- 002 -	00	02 OF 05

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

DESCRIPTION OF EVENT:

At 0715 hours on January 9, 1993, Unit 1 was in Mode 1 at 74% power. A Technical Specification 3.0.3 condition was declared due to two channels of Power Range Nuclear Instrumentation (NI) being inoperable. One of the two channels of NI (NI-43) had been declared inoperable at 1322 hours on January 8, 1993, for performance of an axial flux difference calibration. This channel was still inoperable, at 2220 hours, when the daily NI calorimetric was performed. As a result, NI-43 was not compared to reactor power as required by the calorimetric surveillance. NI-43 was subsequently declared operable at 0050 hours, on January 9, 1993. The surveillance interval for the NI-43 calorimetric surveillance was due to exceed the grace period at 0325 hours, on January 9, 1993. This time is based on 24 hours plus 6 hours grace period from the last NI-43 calorimetric comparison surveillance (2125 hours on January 7, 1993). Subsequent to declaring NI-43 operable, NI-41 was rendered inoperable (0108 hours, January 9, 1993) for the performance of a similar axial flux difference calibration. The unit remained in a condition where channel NI-41 was the only inoperable channel until 0325 hours. At this point in time, NI-43 became administratively inoperable due to exceeding the grace period for the calorimetric surveillance. As a result, Unit 1 was in a Technical Specification 3.0.3 condition due to having two inoperable NI channels. This condition was not recognized until approximately 0715 hours, at which time a Technical Specification 3.0.3 condition was declared. An NI channel calibration was immediately performed and Technical Specification 3.0.3 was exited at 0738 hours.

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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 INFORMATION AND RECORDS MANAGEMENT BRANCH (MNB 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	03 OF 05
				9 3	- 0 0 2 -	0 0	

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

CAUSE OF EVENT:

The cause of this event is less than adequate procedural guidance in that the calibration procedure did not specify the appropriate action to take if one NI channel is inoperable. This appears to be a rare situation wherein one surveillance procedure is used to perform a channel calibration on more than one channel. A contributing factor to this event was that a log entry was not made to note performance of the channel calibration performed at 2220 hours, on January 9, 1993. This entry could have alerted other personnel of the situation and steps would have been taken to ensure the calorimetric was performed prior to declaring the channel operable. In addition, shift operating personnel believed that the performance of a channel check was sufficient to return the channel to operable status. No assessment was made with regard to surveillance periodicity and its impact on the operability of the channel. This could imply a generic weakness on the part of operating personnel regarding the requirements to ensure surveillances are within periodicity prior to returning equipment to an operable status.

An additional factor in this event was failure to follow procedural requirements with regard to configuration management. Specifically, the Operational Configuration Management procedure requires that an Operability Tracking Log (OTL) entry be made for any surveillance test that extends past the end of the shift. The NI-43 axial flux difference surveillance extended past the end of two shifts and an OTL entry was not made. Closing the OTL would have provided an additional opportunity to note that the calorimetric had not been performed on NI-43.

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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 (MIRB 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 (8)			PAGE (3)
South Texas, Unit 1		05000 498		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	04 OF 05
				9 3	- 0 0 2 -	0 0	

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

ANALYSIS OF EVENT:

Prior to returning NI-43 to service, a channel check was performed by at least two licensed operators and the Shift Technical Advisor (STA) that confirmed that NI-43 was reading consistent (<2% difference) with the other three channels. This channel check was again performed prior to taking NI-41 out of service confirming that NI-43 was indicating properly. Therefore, even though NI-43 became administratively inoperable at 0325 hours, it was in fact capable of performing its intended function.

Plant operation in Mode 1 with two channels of NI inoperable is a condition prohibited by the Technical Specifications, and therefore, reportable pursuant to 10CFR50.73(a)(2)(i)(B). A missed surveillance is also reportable pursuant to 10CFR50.73(a)(2)(i)(B). This event did not have any adverse impact on the health and safety of the public.

CORRECTIVE ACTIONS:

1. The channel calorimetric was performed satisfactorily and NI-43 was restored to operability at 0738 hours on January 9, 1993.
2. The channel calorimetric procedure will be revised to ensure that appropriate actions are taken to ensure that calorimetrics are performed for NIs being returned to service. This action will be completed by June 8, 1993.
3. To address generic implications, a review will be performed to determine if other at-power surveillance procedures exist that test multiple channels in a single procedure which could cause a similar problem. This review will be completed by June 26, 1993, with changes scheduled on an expedited basis.
4. Shift turnover sheets will be modified to ensure that OTL entries have been generated for ongoing surveillances, prior to shift turnover. This action will be completed by April 19, 1993.

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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 (MNBR 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 1	05000 498	93	- 002 -	00	05 OF 05

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

CORRECTIVE ACTIONS: (Con't)

5. This event will be included in Licensed Operators Regualification Training. This action will be completed by July 16, 1993. In the interim, a Training Bulletin will be issued by March 16, 1993, to discuss procedural requirements regarding operator log and surveillance test entries.
6. The Post Maintenance Testing Manual will be revised to ensure the calorimetric and channel checks are completed prior to returning the inoperable NI channel to service. This action will be completed by March 16, 1993.

ADDITIONAL INFORMATION:

Unit 1 LER 90-013 reported a Technical Specification violation due to two inoperable nuclear instruments. The cause was attributed to less than adequate labeling, less than adequate procedures and a coincidental crossmatch between detector and detector signal cable alphabetic designator which complicated the relatively simple task of reconnecting the upper and lower power range nuclear instrumentation signal cables.