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

October 14, 1991
ST-HL-AE-3888
File No.: G26
10CFR50.73

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

South Texas Project Electric Generating Station
Unit 1
Docket No. STN 50-498
Licensee Event Report 91-020 Regarding
a Technical Specification Violation Due to
Failure to Perform Two Rod Position Surveillances

Pursuant to 10CFR50.73, Houston Lighting & Power Company (HL&P) submits the attached Licensee Event Report (LER 91-020) regarding a Technical Specification violation due to failure to perform two rod position surveillances. 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) 972-7205.

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

TJH/amp

Attachment: LER 91-020, (South Texas, Unit 1)

IE22
1/1

LER\91275001.U1

cc:

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Revised 10/11/91

NRC FORM 366 (6-89) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES: 4/30/92

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 (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.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
South Texas, Unit 1	0 5 0 0 0 4 9 8	1 OF 0 5

TITLE (4): Technical Specification Violation Due to Failure to Perform Two Rod Position Surveillances

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 0 0 0
0 9	1 4	9 1	9 1	-	0 2 0	-	0 0	1 0	1 4	9 1		0 5 0 0 0

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	1 0 0	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)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		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	TELEPHONE NUMBER
	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 NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	

SUPPLEMENTAL REPORT EXPECTED (14)

	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO			

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

On September 14, 1991, at 1439, Unit 1 was in Mode 1 at 100% power when the Rod Position Deviation Monitor was incorrectly declared operable by the Shift Supervisor. The error was discovered on September 15, 1991, at 0415 when the "ROD DEVIATION" annunciator was received. During the time the monitor was incorrectly considered operable, two increased frequency surveillances were missed, resulting in a Technical Specification violation. The cause of the event was that errors were made by three Shift Supervisors in implementing the procedural requirements regarding the Operability Tracking Log system. Also, the Shift Supervisor who incorrectly declared the monitor operable did not consult all references prior to making an operability determination. An additional cause was inadequate identification of the effect of the Temporary Modification package which documented the monitor inoperability. A briefing will be given to the licensed operators stressing the importance of the Operability Tracking Log system as described in the Configuration Management Procedure. Also, a memo has been sent to all Senior Reactor Operators stressing the need to exhaust all available references prior to making operability determinations. The Temporary Modification request form has been revised to provide a clearer operability determination reminder.

APPROVED OMB NO. 3150-0104
EXPIRES: 4/30/92

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 (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 (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
South Texas, Unit 1	0 5 0 0 0 4 9 8	9 1	— 0 2 0	— 0 0	0 2 OF 0 5

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

DESCRIPTION OF EVENT:

On September 14, 1991, at 1439, Unit 1 was in Mode 1 at 100% reactor power when the Shift Supervisor incorrectly declared the Rod Position Deviation Monitor operable for a period of approximately 14 hours. The South Texas Project Electric Generating Station (STPEGS) Technical Specifications 3/4.1.3.1, 3/4.1.3.2, and 3/4.1.3.6 require control rod position to be monitored every 12 hours with the rod position deviation monitor operable and that they be monitored every 4 hours when the rod position deviation monitor is inoperable. As a result, during the approximately 14 hours the monitor was incorrectly considered operable, two Technical Specification 4 hour position surveillances were missed. Upon discovery of the error, the rod position deviation monitor was declared inoperable and the 4 hour position surveillances were resumed.

The incorrect operability determination was discovered on September 15, 1991, at 0415 when the "ROD DEVIATION" annunciator was received. The Licensed Operators responded to the alarm and manually verified that there was no rod deviation. Initially the Operators were unable to determine whether the cause of the alarm was from the Digital Rod Position Indication (DRPI) panel or the PROTEUS computer; however, one of the Operators remembered that a relay required for rod position deviation monitor operability had been removed. The relay is associated with the PROTEUS computer point labeled, "RPI RODS HAVE MOVED PULSE", and was removed to prevent multiple spurious "ROD DEVIATION" alarms caused by erratic input from the DRPI system.

The relay was removed on April 3, 1991 without a work document, and the rod position deviation monitor was declared inoperable. The Operability Tracking Log (OTL) listed the removed relay, but did not document a work package associated with the removal of the relay. In May of 1991, a Work Request (WR) was initiated to troubleshoot and identify the cause of the "ROD DEVIATION" alarms and, at the same time, control and document the removal of the relay via the work request process. On July 12, 1991 STPEGS initiated a Station Problem Report (SPR) and an investigation to address removing the relay prior to initiating an associated WR. On July 29, 1991 the DRPI system engineer initiated a Temporary Modification Request, and on August 29, 1991; the relay's removal was formally documented by a Temporary Modification. Because the relay's removal had multiple effects, the Temporary Modification Type was listed as, "OTHER: pulling of a relay," instead of, "DISABLED ANNUNCIATOR ALARM." Also, the Shift Supervisor who authorized the installation of the Temporary Modification did not correlate it with the then four month old OTL, and as such, did not document the Temporary Modification as the work package associated with the removal of the relay in the OTL.

DESCRIPTION OF EVENT: (Cont'd)

On September 5, 1991, work was started for the installation of a Database Change Request (DBCR) to modify the set/reset tag, print number device, and termination data of the rod position deviation monitor PROTEUS computer point. The work package specifically addressed the inoperability of the rod position deviation monitor and was added as part of the existing OTL. The work was completed at 2157 on September 13, 1991. The on-shift Shift Supervisor was uncertain of the monitor's operability status, so he decided to leave the monitor "inoperable" until he could discuss the matter with the system engineer.

On September 14, 1991, a second Shift Supervisor noticed the only listed work document, the DBCR, on the OTL had been closed. He did not remember the Temporary Modification and, after discussing the matter with the Shift Technical Advisor (STA) and satisfactorily manually toggling the alarm from the PROTEUS keyboard as a Post Maintenance Test (PMT), he incorrectly declared the rod position deviation monitor operable.

CAUSE OF THE EVENT:

The Shift Supervisor who initially allowed the relay to be pulled and declared the monitor inoperable made an error in implementing the requirements of the plant procedure regarding the OTL system. The Shift Supervisor who approved the Temporary Modification and the Shift Supervisor who declared the monitor operable also erred in implementing these requirements. Additionally, the PMT used by the Shift Supervisor who declared the monitor operable was inadequate to identify the monitor's inoperability and should not have been used as the basis for operability determination. A contributing cause was that the Temporary Modification Request Form did not concisely identify the inoperable monitor and the resulting compensatory measures.

ANALYSIS OF THE EVENT:

Failure to perform the requirements of Technical Specifications 3/4.1.3.1, 3/4.1.3.2, and 3/4.1.3.6 is reportable pursuant to 10CFR50.73(a)(2)(i)(B). Actuation of the rod position deviation monitor alarm is not an indication that the control rods are mispositioned such that core design limits are exceeded. It is prompt indication that the rod position, as seen by the DRPI system, does not agree closely with the demand position from the Demand Position Indication (DPI) system. Inoperability of the rod position deviation monitor does not result in entry into a Technical Specification action statement, however, it does require additional rod position surveillance. STPEGS performs the 12 hour rod position surveillances by comparing DRPI to DPI once every eight hours, and as such, no more than 8 hours went by without rod position verification. However, this 12 hour surveillance does not address operability of the rod position deviation monitor itself.

CORRECTIVE ACTION:

1. A memorandum to all Senior Reactor Operators stressing the need to exhaust all available references when making operability determinations has been issued. The memorandum also cautions against the use of locally generated PMTs unless they have been properly reviewed and approved.

2. The Operations Department Manager will brief the Licensed Operators on the importance of the OTL system as described in the Configuration Management procedure, specifically to address the importance of documenting work documents in the OTL that will return an item to operability. This will be completed by November 30, 1991.

3. Licensed Operators and Chemical Operations personnel will be made aware of this event during upcoming formal training classes. It will also be emphasized to Licensed Operators and Chemical Operators personnel that configuration changes to operating plant structures, systems, and components require control and documentation per the Temporary Modification procedure or other approved procedures or programs. The training for the Licensed Operators will be completed by November 30, 1991, and by February 28, 1992 for the Chemical Operations personnel.

4. Plant Engineering has issued a training bulletin to make system engineers aware of this event. The bulletin also emphasized that configuration changes to operating plant structures systems, and components require control and documentation per the Temporary Modifications procedure or other approved procedures or programs.

5. STPEGS has enhanced the OTL program to highlight the need to ensure a work request has been issued to repair the inoperable component.

6. STPEGS has reviewed all Temporary Modifications in both Unit 1 and Unit 2 for component/system operability concerns.

7. STPEGS has revised the Temporary Modification Request Form to aid the operators in making operability determinations.

ADDITIONAL INFORMATION:

A similar event occurred to Unit 1 regarding violation of Technical Specification 3.1.3.1 and 3.1.3.2 on July 13, 1989, and was reported as LER 89-016, "Technical Specifications Violation Due to Inadequate Procedural Control Over a Plant Modification."

ADDITIONAL INFORMATION: (Cont'd)

Additionally, there have been two LER's issued related to problems with the OTL. These LER's are Unit 1 89-010, "Failure to Perform Post Maintenance Testing of a Charging Pump Recirculation Valve Due to Personnel Error," and Unit 2 89-010, "Violation of Technical Specifications Due to Personnel Error."