

LICENSEE EVENT REPORT (LER)

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

Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the Records Management Branch (T-6 F33), 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. If an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information.

FACILITY NAME (1)

South Texas Unit 1

DOCKET NUMBER (2)

05000 498

PAGE (3)

1 of 3

TITLE (4)

Entry into Technical Specifications 3.0.3 Due to Inoperable Rod Control Demand Step Counters

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
09	09	1998	98	-- 008 --	00	10	14	1998	FACILITY NAME	DOCKET NUMBER
										05000
									FACILITY NAME	DOCKET NUMBER
										05000

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)

OPERATING MODE (9)	1	20.2201(b)	20.2203(a)(2)(v)	<input checked="" type="checkbox"/>	50.73(a)(2)(i)	50.73(a)(2)(viii)
POWER LEVEL (10)	100	20.2203(a)(1)	20.2203(a)(3)(i)		50.73(a)(2)(ii)	50.73(a)(2)(x)
		20.2203(a)(2)(i)	20.2203(a)(3)(ii)		50.73(a)(2)(iii)	73.71
		20.2203(a)(2)(ii)	20.2203(a)(4)		50.73(a)(2)(iv)	OTHER
		20.2203(a)(2)(iii)	50.36(c)(1)		50.73(a)(2)(v)	Specify in Abstract below or in NRC Form 366A
		20.2203(a)(2)(iv)	50.36(c)(2)		50.73(a)(2)(vii)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
Scott Head - Licensing Supervisor	(512) 972-7136

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX
n/a	n/a	n/a	n/a	N					

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/>	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 September 9, 1998, an unintentional entry into Technical Specification 3.0.3 was made when Bank D control rod step counters were inoperable for approximately 34 minutes during a troubleshooting procedure. While performing troubleshooting on the Rod Control System, additional work instructions were written into the work package to remove a relay driver card from the Rod Control System logic cabinet and place it on an extender board. Discussions during the pre-job brief did not adequately capture the effect of these changes to the work instructions. Because of three broken pins on the extender board, the driver card did not receive power after being installed. The result was that rods were moved but the control board demand position did not change. The extender card was subsequently removed and the original driver card was reinstalled in the cabinet. The step counter operation was verified and the step counters were restored to the correct position. Corrective actions include detailed discussions of lessons learned with maintenance, work control and operations personnel.

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

DESCRIPTION OF EVENT:

On September 9, 1998, an unintentional entry into Technical Specification 3.0.3 was made when control rod step counters for Bank D were rendered inoperable for approximately 34 minutes during a troubleshooting procedure.

Initial troubleshooting began on the Rod Control System on September 3, 1998, when the C-11 indicator light (Rods at 248 Steps) was not lit with control rods at 250 steps. The work package was prepared to troubleshoot the pulse-to-analog converter on the Rod Control System. The original scope of the work did not affect the step counters. On September 9, additional instructions were written into the work package to remove a relay driver card from the Rod Control System logic cabinet and place it on an extender board.

A pre-job brief was conducted prior to starting work to discuss the work scope. The pre-job brief concentrated on the troubleshooting plan to monitor the driver card inputs and outputs to the pulse to analog converter, and whether testing could lead to generating any reactor trip signals. Since the driver card circuits are independent of each other, it was thought that problems with the test equipment connections, or a short circuit, would not have affected the step counter signals.

After the brief, the driver card from the Rod Control System logic cabinet was removed and reinstalled on the extender board. Control room personnel were requested to step Bank D control rods in. Because of three broken pins on the extender board, the driver card did not receive power after being installed. Control room personnel realized the problem with the step counters, when the digital rod position indication changed but both Bank D step counters did not move, and they reviewed Technical Specifications for applicability. The extender board was removed and the original driver card was reinstalled. Step counter operation was verified and it was determined that control rods had been moved five steps. The step counters were then restored to their correct position.

CAUSE OF EVENT

The cause of this event was less than adequate communication between the control room staff and the maintenance personnel conducting the troubleshooting evolution.

ANALYSIS OF EVENT

Any operation or condition prohibited by the plant's Technical Specifications is reportable under 10CFR50.73(a)(2)(i)(B). Technical Specification 3.1.3.2.b allows only one step counter per bank to be inoperable. When the troubleshooting was performed on Bank D, both step counters were inoperable for approximately 34 minutes and an unintentional entry into Technical Specification 3.0.3 was made on September 9, 1998. Operability of the control rods position indicators is required to determine control rod positions and thereby ensure compliance with the control rod alignment and insertion limits. During this time control rod motion was observed on the Digital Rod Position Indication System which remained operable at all times during the troubleshooting. At no time did control rods become misaligned in the group and they were not more than twelve steps from their bank step counters.

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

CORRECTIVE ACTIONS

1. Operations management will discuss lessons learned from this event as well as expectations for effective communications with all licensed Operations personnel. (Due October 22, 1998)
2. Maintenance and Work Control will discuss lessons learned from this event as well as expectations for effective communications with appropriate supervisory personnel. (Due December 16, 1998)
3. Lessons learned from this event will be included in formal Licensed Operator Requalification Training. (Due March 25, 1999)

ADDITIONAL INFORMATION

There have been no licensee Event Reports submitted in the last three years by the South Texas Project to the Nuclear Regulatory Commission regarding an inoperable rod control system.