



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

April 3, 2000
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10CFR50.73
STI: 31070602

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

South Texas Project
Unit 1
Docket No. STN 50-498
Licensee Event Report 00-002
Operability of Technical Specification Equipment Incorrectly Determined Resulting in
Noncompliance with Technical Specification Action Statements

Pursuant to 10CFR50.73, South Texas Project submits the attached Unit 1 Licensee Event Report 00-002 regarding a noncompliance with Technical Specification Action Statements. This event did not have an adverse effect on the health and safety of the public.

Licensee commitments are listed in the Corrective Action section of the attachment. If there are any questions on this submittal, please contact either Mr. S. M. Head at (361) 972-7136 or me at (361) 972-7800.

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Plant General Manager

WEM

Attachment: LER 00-002 (South Texas, Unit 1)

IE22

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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 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 5

TITLE (4)

Operability of Technical Specification Equipment Incorrectly Determined Resulting in Noncompliance with Technical Specification Action Statements

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
03	02	2000	2000	0002	00	04	03	2000		
									FACILITY NAME	DOCKET NUMBER
										05000
									FACILITY NAME	DOCKET NUMBER
										05000

OPERATING MODE (9)	POWER LEVEL (10)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)				
5	0%	20.2201(b)	20.2203(a)(2)(v)	<input checked="" type="checkbox"/>	50.73(a)(2)(i)	50.73(a)(2)(viii)
		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

Scott Head - Licensing Supervisor

TELEPHONE NUMBER (Include Area Code)

(361) 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

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE.) NO

EXPECTED SUBMISSION DATE (15)

MONTH DAY YEAR

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

On March 1, 2000, Unit 1 was in Mode 5, Cold Shutdown. Between 1415 hours on March 1, 2000 and 2208 hours on March 2, 2000, South Texas Project incorrectly determined the operability of the Source Range Nuclear Instrumentation (NI) NI-31 and Extended Range NI-45. As a result, the appropriate Technical Specification Limiting Condition For Operations (LCO) action statements of Technical Specification 3.8.2.2 and 3.8.3.2, regarding suspension of positive reactivity changes, were not complied with when control rods were withdrawn during rapid refueling rod holdout operations. The incorrect condition was identified at 1245 on March 2, 2000 and the required Technical Specification actions taken. This event resulted in a non-compliance with Technical Specification actions, which is a condition prohibited by Technical Specifications per 50.73 (a)(2)(i)(B); and a 24-hour notification is required by section 2G of the Operating License. During this same timeframe, South Texas Project also incorrectly determined the operability of "A" Train Pressurizer Power Operated Relief Valve (PORV); however, this was recognized before Technical Specification 3.4.9.3 LCO was exceeded and the Reactor Coolant System (RCS) was depressurized and vented within the allowed timeframe of the LCO. The root cause of the event was a failure to develop administrative documents to support the changes to Technical Specifications 3.8.2.2 and 3.8.3.2. Corrective actions include development of administrative tools to specify and verify the electrical power needs for equipment in Modes 5 and 6.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
South Texas Unit 1	05000 498	2000	-- 002	-- 00	2 of 5

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

DESCRIPTION OF EVENT

Unit 1 was in Mode 5 preparing for refueling operations. The following activities were performed:

- On March 1, 2000 at 1007 hours distribution panel (DP) DP001 was declared INOPERABLE for maintenance. Extended Range NI-45, powered from DP001, was declared INOPERABLE and Technical Specification 3.3-1, Item 7, Action 4 was entered.
- On March 1, 2000 at 1008 hours DP1201 was declared INOPERABLE for maintenance. Source Range NI-31, powered from DP1201, was declared INOPERABLE and Technical Specification 3.9.2 was entered.
- On March 1, 2000 at 1415 hours, "A" Train 125 VDC Battery E1A11 was declared INOPERABLE and Technical Specifications 3.8.2.2 and 3.8.3.2 LCOs were entered.
- After maintenance activities were completed on DP001 and 1201, both DPs were energized from their voltage regulator transformer.
- At 2249 hours on March 1, 2000, after a successful channel check, Source Range NI-31 was declared OPERABLE and Technical Specification 3.9.2 was exited.
- At 2302 hours on March 1, 2000, after a successful channel check, Extended Range NI-45 was declared OPERABLE and Technical Specification 3.3-1, Item 7, Action 4 was exited.
- At 0022 on March 2, 2000, the Reactor Trip Breakers were closed to perform rapid refueling rod holdout operations.
- At 0027 on March 2, 2000 rapid refueling rod holdout operations were started. This evolution involves fully withdrawing all control rods and locking them in that position.
- At 0400 on March 2, 2000 rod holdout operations were suspended to support crud burst operations.
- On the morning of March 2, 2000 (exact time unknown) a licensed operator questioned the electrical lineups to support required equipment with station battery E1A11 inoperable. This question prompted a review that ultimately concluded at 1245 that the plant alignment did not comply with Technical Specifications to support some required equipment.
- At 1245 on March 2, 2000 Extended Range NI-45 and Source Range NI-31 were declared inoperable since they were not battery backed. No operations involving positive reactivity changes were in progress.
- At 1400 on March 2, 2000 DP001 was shifted to normal electrical lineup with battery backup.
- At 1417 on March 2, 2000 DP1201 was shifted to normal electrical lineup with battery backup.
- At 1759 on March 2, 2000 the Reactor Coolant System was vented through the required two square inch vent path.
- At 2100 on March 2, 2000 station battery E1A11 was returned to OPERABLE status. Extended Range NI-45 and Source Range NI-31 were restored to OPERABLE.

South Texas Project did not recognize that both Source Range NI-31 and Extended Range NI-45 were INOPERABLE as of 1415 hours on March 1, 2000, since they were not backed by an OPERABLE battery as is required by Technical Specifications 3.8.2.2 and 3.8.3.2. Because of this mistake, Extended Range NI-45 and Source Range NI-31 were not declared INOPERABLE and Technical Specifications 3.8.2.2 and 3.8.3.2 LCO action statements were not entered. Contrary to these requirements, on March 2, 2000 at 0027, positive reactivity changes occurred when control rods were moved as part of rapid refueling rod holdout operations. The rods were cycled 18 steps three times between the hours of 0027 and 0400 on March 2, 2000.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
South Texas Unit 1	05000 498	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	3 of 5
		2000 --	002 --	00	

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

DESCRIPTION OF EVENT (Continued)

When the Reactor Trip Breakers are closed in Mode 5, Technical Specification 3.3-1, Item 6.b, regarding OPERABLE Source Range NIs, is applicable. Because South Texas Project did not recognize that Source Range NI-31 was INOPERABLE since it was not battery backed, Technical Specification 3.3-1 was not applied and Reactor Trip Breakers were closed inappropriately.

CAUSE OF EVENT

The root cause for this event was a failure to develop administrative documents to support the changes to Technical Specifications 3.8.2.2 and 3.8.3.2.

On February 14, 1995, Technical Specifications 3.8.2.2 and 3.8.3.2 were amended. The new Technical Specifications did not provide a listing of specific equipment required to be OPERABLE in Modes 5 and 6 for support equipment, as was in the previous Technical Specifications. No additional administrative instructions or controls were put in place to ensure proper implementation.

ANALYSIS OF EVENT

The Nuclear Regulatory Commission was notified on March 2, 2000 at 1925 (EST) that Unit 1 did not comply with Technical Specification 3.8.2.2 and 3.8.3.2 LCO actions statements regarding suspension of positive reactivity changes. A failure to meet Technical Specification requirements is reportable to the Nuclear Regulatory Commission pursuant to 10CFR50.73(a)(2)(i)(B). No personnel injuries, radiological consequences, or equipment damage resulted from this event.

Although Source Range NI-31 and Extended Range NI-45 were INOPERABLE when positive reactivity changes were made because the E1A11 battery was INOPERABLE, the distribution panels providing power to both NIs were powered through a voltage regulating transformer that was receiving its power from a safety related power supply. Both NIs were in operation and had passed channel checks verifying they were operating properly in their current lineups. Extended Range NI-46 and Source Range NI-32 were OPERABLE and battery backed. This occurrence was reviewed for its impact on plant risk and found to have a non-quantifiable and insignificant impact on the plant risk during this period.

South Texas Project reviewed the implementation of other Technical Specification changes over the past 3 years. This review determined that there were no generic concerns with the Technical Specification change implementation process.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
South Texas Unit 1	05000 498	2000	-- 002 --	00	4 of 5

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

CORRECTIVE ACTIONS

The following corrective actions will be taken as a result of this event:

1. As an interim measure until Corrective Actions 2 and 3 can be completed, guidance has been provided for Operations and outage coordinators to use regarding what equipment is required for OPERABILITY of equipment required to be OPERABLE in Modes 5 and 6.
2. Develop administrative guidelines that clearly identify what necessary portions of AC, DC, and AC vital bus electrical power distribution subsystems are required to be OPERABLE to support equipment required to be OPERABLE in Modes 5 and 6 into a controlling document by August 31, 2000.
3. Incorporate the administrative guidance from corrective action #1 into the appropriate surveillance procedure that satisfies the surveillance requirements for Technical Specifications 3.8.2.2 and 3.8.3.2 by December 31, 2000.

ADDITIONAL INFORMATION

In addition to the event described above in this report, a related event occurred during this same time frame, however in this case, no violation of Technical Specifications occurred. On March 1, 2000 at 1008 hours, "A" train 120 VAC distribution panel (DP) DP1201 was declared INOPERABLE for maintenance and power was removed. DP1201 provides power to the "A" Train Solid State Protection System (SSPS) actuation logic and specifically to relay K942. Relay K942 is the Cold Overpressure Mitigation System (COMS) relay providing an actuation signal for COMS. This rendered the "A" Train Pressurizer Power Operated Relief Valve (PORV) INOPERABLE. Technical Specification 3.4.9.3 should have been entered at this time and the action statement entered requiring the PORV be restored within 24 hours or the RCS be depressurized and vented through a two square inch vent within the next eight hours. The Pressurizer PORV being INOPERABLE at 1008 on March 1, 2000 due to power being removed from the COMS actuation relay was not recognized by South Texas Project. However, the PORV was declared INOPERABLE at 1415 hours on March 1, 2000 when the E1A11 battery was declared INOPERABLE and Technical Specification 3.4.9.3 was entered. RCS cooldown commenced on March 2, 2000 at 1405 to depressurize and vent the RCS within the next eight hours or by 2205 hours on March 2, 2000. A question was raised regarding whether the Pressurizer PORV should have actually been declared INOPERABLE at 1008 on March 1, 2000 when DP1201 was declared INOPERABLE for maintenance. It was determined that the PORV should have been declared INOPERABLE at 1008 hours on March 1, 2000, and the target time to complete the cooldown and depressurization was revised to 32 hours from the 1008 hours time of March 1, 2000, or 1808 hours on March 2, 2000. The RCS was depressurized and vented at 1759 on March 2, 2000, within the Technical Specification LCO action time limit from when DP1201 was declared INOPERABLE.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
South Texas Unit 1	05000 498	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	5 of 5
		2000	-- 002	-- 00	

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

ADDITIONAL INFORMATION (Continued)

Although the Pressurizer PORV was not declared INOPERABLE when power was removed from the COMS relay, the RCS was depressurized and vented within the allowed timeframe in Technical Specification LCO 3.4.9.3. This occurrence was also reviewed for its impact on plant risk and also had no impact on the plant risk during this period.

A review of three previous outages was performed to determine if similar events have occurred in the past regarding misunderstanding of electrical lineups and affects on operability of electrical systems during Modes 5 and 6 with the class 1E battery INOPERABLE. Based on this review, it is clear that the misapplication of Technical Specification 3.8.2.2 and 3.8.3.2 has occurred in the past and this is not an isolated incident. Additionally, at least one instance has been identified where a Pressurizer PORV was INOPERABLE and the actions required by Technical Specification 3.4.9.3 were not completed in the required time frame.

The Corrective Actions stated in the report will also address the occurrences stated in the above two paragraphs.

South Texas Project has reviewed the remaining schedule of the current refueling outage to identify where vulnerability to the events in this report may occur. The schedule was verified to be in conformance with the Technical Specifications. Any failures of electrical equipment will be handled using the guidance prepared in accordance with Corrective Action 1 in this report.

South Texas Project LER 1-1998-006 reported an event that was also caused by change management issues. This event concerned the Appendix J testing of Containment Isolation Valves and mistakes made in application of changes to the program.