



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

16 November, 2009
NOC-AE-09002485
File No.: G25
10 CFR 50.73

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
One White Flint North
11555 Rockville Pike
Rockville, MD 20852-2738

South Texas Project
Unit 1
Docket No. STN 50-498
Licensee Event Report 1-2009-002
Main Steam Isolation Valve Blocked from Closing

Pursuant to 10 CFR 50.73, the STP Nuclear Operating Company (STPNOC) submits the attached Unit 1 Licensee Event Report 1-09-002 to address an incident in which maintenance activities blocked a Main Steam Isolation Valve (MSIV) from fully closing. This condition is reportable under 10 CFR 50.73(a)(2)(i)(B).

This event did not have an adverse effect on the health and safety of the public.

There are no commitments contained in this Licensee Event Report. Corrective actions will be processed in accordance with the STP Corrective Action Program.

If there are any questions on this submittal, please contact either P. L. Walker at (361) 972-8392 or me at (361) 972-7158.

Louis Peter
Plant General Manager

PLW
Attachment: LER 1-2009-002, Main Steam Isolation Valve Blocked from Closing

STI: 32565968

IL22
NAR

cc:

(paper copy)

Regional Administrator, Region IV
U. S. Nuclear Regulatory Commission
612 East Lamar Blvd., Suite 400
Arlington, Texas 76011-8064

Mohan C. Thadani
Senior Project manager
U.S. Nuclear Regulatory Commission
One White flint North (MS 8B 1A)
11555 Rockville Pike,
Rockville, MD 20852

Senior Resident Inspector
U. S. Nuclear Regulatory Commission
P. O. Box 289, Mail Code: MN116
Wadsworth, TX 77483

C. M. Canady
City of Austin
Electric Utility Department
721 Barton Springs Road
Austin, TX 78704

(electronic copy)

Kevin Howell
Catherine Callaway
Jim von Suskil
NRG South Texas LP

A. H. Gutterman, Esquire
Morgan, Lewis & Bockius LLP

Mohan Thadani
U. S. Nuclear Regulatory Commission

J. J. Nesrsta
R. K. Temple
Kevin Pollo
E. Alarcon
City Public Service

C. Mele
City of Austin

Jon C. Wood
Cox Smith Matthews

Richard A. Ratliff
Texas Department of Health Services

Alice Rogers
Texas Department of Health Services

LICENSEE EVENT REPORT (LER)

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

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose 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 collection.

1. FACILITY NAME South Texas Unit 1	2. DOCKET NUMBER 05000498	3. PAGE 1 OF 4
---	-------------------------------------	--------------------------

4. TITLE
Main Steam Isolation Valve Blocked from Closing

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
09	17	09	2009	- 002 -	0	11	16	2009	N/A	N/A
									FACILITY NAME	DOCKET NUMBER
									N/A	N/A

9. OPERATING MODE 1	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: (Check all that apply)			
10. POWER LEVEL 100%	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)
	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)
	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(vii)(B)
	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)
	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)
	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)
	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)
<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> OTHER	
<input type="checkbox"/> 20.2203(a)(2)(vi)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A	

12. LICENSEE CONTACT FOR THIS LER

NAME Philip L. Walker, Staff Licensing Engineer	TELEPHONE NUMBER (Include Area Code) 361-972-8392
--	--

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX
NA									

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

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

On September 17, 2009, Unit 1 Main Steam Isolation Valve (MSIV) 1D (MS-FSV-7444) was discovered to be inoperable due to restricted movement that kept it from being closed completely. Erection of a wooden deck work platform around MSIV 1D began on September 14 with decking that was later found to interfere with valve movement. Operability was restored at 14:57 on September 17, 2009, when the scaffolding was modified to remove the interference.

Technical Specification 3.7.1.5 requires that each MSIV be operable in Modes 1, 2, and 3. If one MSIV is inoperable but open, power operation may continue provided that operability is restored within four hours, or the requirements of the Configuration Risk Management Program are met. Otherwise, the unit is to be in at least hot standby within six hours. Because the MSIV was inoperable longer than allowed under the Technical Specifications without taking the appropriate action, this event is reportable under 10 CFR 50.73(a)(2)(i)(B).

The root cause of the event was inadequate procedures for scaffold installation. The procedures did not ensure an adequate review of the impact of the scaffold installation on operation of the plant. Procedures are to be revised to improve control over installation of scaffolding.

Only MSIV 1D was affected by this condition. There were no personnel injuries, no offsite radiological releases, and no damage to other safety-related equipment.

LICENSEE EVENT REPORT (LER)

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE	
South Texas Unit 1	05000498	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2	OF 4
		2009	002	00		

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

I. DESCRIPTION OF EVENT

A. REPORTABLE EVENT CLASSIFICATION

This event is reportable pursuant to 10 CFR 50.73(a)(2)(i)(B). South Texas Project (STP) Technical Specification 3.7.1.5 allows one Main Steam Isolation Valve (MSIV) to be inoperable but open in Modes 1 through 3 for four hours before taking action to begin shutdown without extending the allowed outage time using the Configuration Risk Management Program. However, STP Unit 1 MSIV 1D was determined to have been inoperable longer than the allowed outage time without taking action as required. Consequently, STP Unit 1 was in a condition prohibited by Technical Specifications.

B. PLANT OPERATING CONDITIONS PRIOR TO EVENT

STP Unit 1 was in Mode 1 at 100% power.

C. STATUS OF STRUCTURES, SYSTEMS, AND COMPONENTS THAT WERE INOPERABLE AT THE START OF THE EVENT AND THAT CONTRIBUTED TO THE EVENT

No other inoperable structures, systems, or components contributed to the event.

D. NARRATIVE SUMMARY OF THE EVENT

On September 14, 2009, construction of a wooden deck work platform was begun around MSIV 1D to support implementation of a design change. Construction was completed on September 16. The deck was below the actuator flange and on all four sides of MSIV 1D, a position that would have prevented MSIV 1D from performing its design function of closing on demand. This condition was observed by a Reactor Operator performing his rounds on September 17, 2009, and reported to Engineering and Operations management. Subsequent measurement confirmed that interference between the wooden deck work platform and the valve actuator would prevent valve closure.

Following confirmation of the interference, action was initiated to dismantle the platform. The platform was removed at 14:57 on September 17 and MSIV 1D was restored to operable status. The estimated duration of MSIV 1D inoperability is 72 hours.

Because MSIV 1D was inoperable longer than the Technical Specification allowed outage time, the condition was reported to the NRC under 10 CFR 50.73(a)(2)(i)(B).

All scaffolds in STP Unit 1 and Unit 2 were subsequently inspected, and no other instance of interference was found.

E. METHOD OF DISCOVERY

This condition was identified by a Reactor Operator making his normal rounds of the Isolation Valve Cubicle.

II. EVENT-DRIVEN INFORMATION

A. SAFETY SYSTEMS THAT RESPONDED

No safety systems were required to respond during this event.

LICENSEE EVENT REPORT (LER)

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE	
South Texas Unit 1	05000498	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	3	OF 4
		2009	002	00		

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

B. DURATION OF SAFETY SYSTEM INOPERABILITY

Installation of the subject scaffolding began at 1500 on September 14, 2009, and completed September 16 at approximately 1700. The interference with valve movement was discovered September 17, 2009. Operability of MSIV 1D was restored when the interference was removed at 14:57 on September 17. The estimated duration of inoperability is 72 hours.

C. SAFETY CONSEQUENCES AND IMPLICATIONS OF THE EVENT

Technical Specification Requirements:

Technical Specification 3.7.1.5 requires each MSIV to be operable in Modes 1, 2, and 3. With one MSIV inoperable but open, power operation may continue provided that the inoperable valve is restored to operable status within four hours or the requirements of Configuration Risk Management Program are met. Otherwise, the plant is to be in Hot Standby within the next six hours and in Hot Shutdown within the following six hours.

Because MSIV 1D was inoperable longer than allowed under the Technical Specifications without entering the appropriate action statements, this event is reportable pursuant to 10 CFR 50.73(a)(2)(i)(B).

Design Description:

Main steam isolation valves only provide a safety function and are not required for power operation. These valves are normally open to allow steam flow through the main steam system. They are designed to fail closed to stop forward and reverse steam flow. Valve closure provides containment isolation or to prevent blowdown of more than one steam generator at a time. Isolation is required in response to the following:

- Main steamline break inside containment
- Break outside containment and upstream of the MSIV
- Steam generator tube rupture

MSIV 1D is a 30-inch, ASME Class 2, Wye pattern globe valve actuated by an Air-to-Open/Spring-to-Close actuator. The valve strokes from the fully back-seated position to the fully main-seated position in no more than 5 seconds.

Risk Assessment:

This condition contributed a small change in core damage risk and large early release risk based on the guidance contained in NRC Inspection Manual Chapters 0609 and 0612. Incremental Condition Core Damage Probability is less than 1E-6 per year, and Large Early Release Frequency is less than 1E-7 per year. Therefore, inability to fully close the MSIV during this interval had very low safety significance.

III. CAUSE OF THE EVENT

The root cause of the event was an inadequate procedure for scaffold installation. As exhibited below, the procedure did not ensure an adequate review of the impact of the scaffold installation on the operation of the plant.

- The non-standard scaffolding and decking installation process does not require input from

LICENSEE EVENT REPORT (LER)

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE	
South Texas Unit 1	05000498	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	4	OF 4
		2009	002	00		

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

Engineering or Operations to identify and document limitations, restrictions, requirements, or considerations near or around equipment important to plant operations. Additionally, no input is required by these departments to periodically verify that previously approved non-standard scaffold and/or decking sketches are still valid.

- The procedure for erection and use of temporary scaffolding does not contain requirements or attributes with the depth and rigor needed for non-standard scaffold and/or decking installation in areas containing plant equipment important to plant operation. Such work warrants written guidance to ensure adequate job quality and work control.
- The pre-job brief is not required to address application of scaffold installation limitations and restrictions consistent with functional requirements of adjacent equipment.
- The scaffold permit process lacks guidance when addressing special applications such as decks and platforms. The guidance should include restrictions on use while at power, limitations for adjacent equipment operation, and cautions for various plant operational modes.

IV. CORRECTIVE ACTION

Revise procedures to establish the process and requirements, including pre-job briefs and the permitting process, for installation of scaffolding and other structures in critical areas of the plant.

- Expected Completion: 02/12/2010

V. PREVIOUS SIMILAR EVENTS

There have been no similar events associated with scaffolding at the South Texas Project. Also, there have been no recent instances at the South Texas Project of maintenance activities having an adverse impact on unrelated aspects of the operating plant.

VI. ADDITIONAL INFORMATION

None.