

# The Light company

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

February 19, 1996

ST-HL-AE-5294

File No.: G26

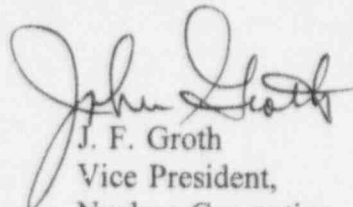
10CFR50.73

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

South Texas Project  
Unit 2  
Docket No. STN 50-499  
Licensee Event Report 96-001  
Technical Specification 3.0.3 Entry Due to Two Main  
Feedwater Isolation Valves Being Inoperable at the Same Time

Pursuant to 10CFR50.73, South Texas Project submits the attached Unit 2 Licensee Event Report 96-001 regarding Technical Specification 3.0.3 entry due to two main feedwater isolation valves being inoperable at the same time. 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. S. M. Head at (512) 972-7136 or me at (512) 972-8664.

  
J. F. Groth  
Vice President,  
Nuclear Generation

KJT/

Attachment: LER 96-001 (South Texas, Unit 2)

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Project Manager on Behalf of the Participants in the South Texas Project

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South Texas Project Electric Generating Station

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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: 50.0 HRS.  
REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE  
LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD  
COMMENTS REGARDING BURDEN ESTIMATE TO THE  
INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33),  
U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC  
20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT

FACILITY NAME (1)

South Texas, Unit 2

DOCKET NUMBER (2)

05000 499

PAGE (3)

1 OF 4

TITLE (4)

Technical Specification 3.0.3 entry due to two main feedwater isolation valves being inoperable at the same time

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
01	19	96	96	-- 001	-- 00	02	19	96	FACILITY NAME	DOCKET NUMBER
										05000
									FACILITY NAME	DOCKET NUMBER
										05000

OPERATING MODE (9)	3	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)				
POWER LEVEL (10)	0	20.2201(b)	20.2203(a)(2)(v)	X	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 M. Head - Sr. Consulting Engineer

TELEPHONE NUMBER (Include Area Code)

(512) 972-7136

## 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)

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

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

On January 19, 1996, Unit 2 was in Mode 3 at 0% power. At 0825 hours, Technical Specification 3.0.3 was entered when it was determined that a Limiting Condition for Operation was not met for an existing condition in which two closed main feedwater isolation valves were declared inoperable for maintenance on January 18, 1996 at 1750 hours. An Usual Event was declared at 0935 hours on January 19, 1996. Post maintenance testing on one of the affected main feedwater isolation valves was performed satisfactorily and the valve was declared operable. With one remaining main feedwater isolation valve inoperable and closed, the required action for Technical Specification 3.7.1.7 Limiting Condition for Operation was met. Technical Specification 3.0.3 was exited at 1028 hours and the Unusual Event was exited at 1031 hours on January 19, 1996. Subsequent investigation determined that the declaration of an Unusual Event was inappropriate. The root cause of this event was human error. Corrective actions included a discussion of enhanced management expectations with emphasis on clear, concise communications, use of the chain of command, and control of logging entry into Technical Specification Limiting Condition for Operation. Other corrective actions involve Emergency Plan refresher training with emphasis on continued application of conservative decision making and guidance regarding communications and work coordination.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
South Texas, Unit 2	05000 499	96	-- 001	-- 00	2 OF 4

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

DESCRIPTION OF EVENT:

On January 19, 1996, Unit 2 was in Mode 3 at 0% power in a planned outage for main electrical generator repairs. At 0825 hours, Technical Specification 3.0.3 was entered and preparations were started for transition to Mode 4 operations. Technical Specification 3.0.3 was entered when it was determined that a Limiting Condition for Operation was not met for a existing condition in which two closed main feedwater isolation valves were declared inoperable.

Work to adjust the packing for main feedwater isolation valves FW-7141 and FW-7143 was planned to be conducted on one main feedwater isolation valve at a time. The intent was to test the first valve after packing adjustment was completed in order to verify operability before packing adjustments were conducted on the second valve. This plan was not effectively communicated to personnel involved in controlling the activity.

Work Start Authority in the outage work control facility reviewed the effect of planned packing adjustment maintenance on Technical Specifications. After a review of Technical Specification 3.7.1.7 and a supporting Technical Specification Interpretation, it was concluded that the main feedwater isolation valves would remain operable and performing their intended safety function as long as the valves remained closed and a positive means was maintained to prevent the valve from inadvertently opening. The review failed to note that the Technical Specification Interpretation only applied to Modes 1 and 2. As a result, work start authorization was given to perform maintenance on both valves.

On January 18, 1996, at 1750 hours, main feedwater isolation valves FW-7141 and FW-7143 were logged out of service. The condition of these valves was documented in the Operability Assessment System for tracking work and subsequent testing. In addition, an entry was made in the Control Room log that Technical Specification 3.7.1.7 was applicable for main feedwater isolation valves FW-7141 and FW-7143 being placed out of service. Work Start Authority did not fully discuss the documented condition of these two valves with the Control Room except that the valves were out of service.

During the next two shift changes, main feedwater isolation valves FW-7141 and FW-7143 were turned over as inoperable. Neither shift recognized that Technical Specification 3.7.1.7 Limiting Condition for Operation included no provisions for two inoperable main feedwater isolation valves in Mode 3. At approximately 1800 hours and 2300 hours, the packing on valves FW-7143 and FW-7141 respectively was adjusted, which potentially affected each valve's stroke time and brought into question whether each valve's Technical Specification surveillance stroke requirement could be met.

On January 19, 1996 shortly after turnover to the day shift, discussions were conducted regarding the operability of main feedwater isolation valves FW-7141 and FW-7143 and entry into Technical Specification 3.7.1.7. At 0825 hours, it was determined that there was no provision in Technical Specification 3.7.1.7 Limiting Condition for Operation for two inoperable closed main feedwater isolation valves while in Mode 3 and Technical Specification 3.0.3 was entered. After further discussion, an Unusual Event was declared at 0935 hours.



LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
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South Texas, Unit 2	05000 499	96	-- 001	-- 00	3 OF 4

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

DESCRIPTION OF EVENT (CONTINUED):

Operability testing on main feedwater isolation valve FW-7141 was performed satisfactorily and the valve was declared operable. With one remaining main feedwater isolation valve inoperable and closed, the required action for Technical Specification 3.7.1.7 Limiting Condition for Operation in Mode 3 was met. Technical Specification 3.0.3 was exited at 1028 hours and the Unusual Event was exited at 1031 hours on January 19, 1996. The preparations to transition to Mode 4 were stopped. No plant cooldown was conducted.

Subsequent investigation determined that the declaration of an Unusual Event was inappropriate. The bases used for declaring the Unusual Event states that an immediate declaration of an Unusual Event is required when the plant cannot be brought to the required operating mode within the allowable action statement time in the Technical Specifications, as the plant is outside its safety envelope. For this event, the plant was required to be in Mode 4 within the 6 hours following initiation of action to transition to Mode 4 as required by the entry into Technical Specification 3.0.3. There was no indication that the required action of Technical Specification 3.0.3 could not be met at the time of the declaration of the Unusual Event. A conservative decision had been made to declare an Unusual Event.

CAUSE OF EVENT:

The root cause of this event was human error.

The misapplication of the interpretation for Technical Specification 3.7.1.7 resulted in allowing the performance of maintenance that affected the operability of more components than allowed by Technical Specifications.

The failure to recognize that the plant was in a condition not allowed by Technical Specifications for approximately 15 hours resulted from a lack of a questioning attitude regarding the condition of main feedwater isolation valves FW-7141 and FW-7143.

Contributing to this event was ineffective communications between the work start authority and the control room.

ANALYSIS OF EVENT:

Any operation or condition prohibited by Technical Specifications is reportable pursuant to 10CFR50.73(a)(2)(i)(B). The main feedwater isolation valves were shut and performing their required safety function. However, the maintenance performed on main feedwater isolation valves FW-7141 and FW-7143 brought into question the ability of these valves to meet their Technical Specification stroke time surveillance requirement and resulted in declaring these valves inoperable until post maintenance testing could verify valve operability. In the closed position, the potential inability of the valves to meet their stroke time has no safety

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

ANALYSIS OF EVENT (CONTINUED):

significance. Post maintenance testing after packing adjustment confirmed that main feedwater isolation valves FW-7141 and FW-7143 met their Technical Specification surveillance requirements.

Main feedwater isolation valves FW-7141 and FW-7143 have large actuator output force of 202,268 lbs-force. The total valve stem friction component due to packing makes up approximately 3.2 per cent of the actuator output force. Historically, these valves have passed stroke time testing following packing adjustment. Therefore, it is unlikely that adjusting the packing of the main feedwater isolation valves would have had any significant effect on the valve stroke time and operability.

There were no adverse safety or radiological consequences of this event.

CORRECTIVE ACTIONS:

1. The lessons from this event resulted in discussions regarding enhanced management expectations including emphasis on clear, concise communications, use of the chain of command, and control of logging entry into Technical Specification Limiting Condition for Operation. These expectations were discussed with the operating crews of both units.
2. Emergency Plan refresher training discussing the lessons learned from this event will be conducted for Licensed Operators by November 1996. Continued application of conservative decision making in regard to issuing reports will be emphasized.
3. Guidance has been issued regarding communications and work coordination between the work start authority and the Control Room.

ADDITIONAL INFORMATION:

A revision to Technical Specification 3.7.1.7 will be submitted as part of the station's Improved Technical Specification submittal. The implementation of Improved Technical Specifications should eliminate the need for Technical Specification Interpretations and clear up potential confusion surrounding the application of Technical Specification 3.7.1.7.

There have been no previous reports by the South Texas Project to the Nuclear Regulatory Commission within the last three years regarding Technical Specification 3.0.3 entry due to two main feedwater isolation valves being inoperable at the same time.