

The Light company

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

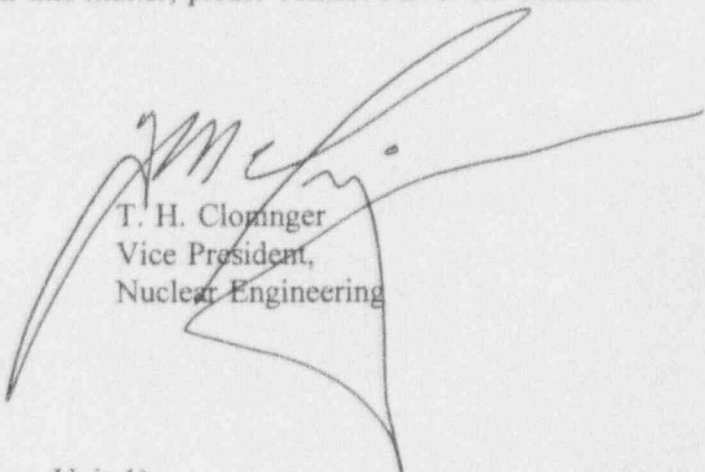
September 08, 1994
ST-HL-AE-4883
File No.: G26
10CFR50.73

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

South Texas Project
Unit 1
Docket No. STN 50-498
Licensee Event Report 94-014
Failure to Meet the Requirements of Technical Specifications
Due To a Failure To Perform an ASME Section XI Test on the
Standby Diesel Generator Starting Air Receiver Inlet Check Valves

Pursuant to 10CFR50.73, Houston Lighting & Power submits the attached Unit 1 Licensee Event Report 94-014 regarding Failure to meet the requirements of Technical Specifications due to a failure to perform an ASME Section XI Test on the Standby Diesel Generator starting air receiver inlet check valves. 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. J. M. Pinzon at (512) 972-8027 or me at (512) 972-8787.


T. H. Clominger
Vice President,
Nuclear Engineering

150046

JMP/esh

Attachment: LER 94-014 (South Texas, Unit 1)

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PDR ADOCK 05000498
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Houston Lighting & Power Company
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 INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), 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.

FACILITY NAME (1) South Texas Unit 1 DOCKET NUMBER (2) 05000 498 PAGE (3) 1 OF 4

TITLE (4) Failure to Meet the requirements of Technical Specifications Due To a Failure To Perform an ASME Section XI Test on the Standby Diesel Generator Starting Air Receiver Inlet Check Valves

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
08	10	94	94	-- 014 --	00	09	08	94	SOUTH TEXAS, UNIT 2	05000 499
									FACILITY NAME	DOCKET NUMBER
										05000

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)						
POWER LEVEL (10)	100	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
		20.405(a)(1)(iii)	X	50.73(a)(2)(i)		50.73(a)(2)(viii)(A)		(Specify in Abstract below and in Text, NRC Form 366A)
		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 Jairo Pinzon - Staff Engineer TELEPHONE NUMBER (Include Area Code) (512) 972-8027

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 15 single-spaced typewritten lines) (16)

On August 10, 1994, Unit 1 and Unit 2 were in Mode 1 at 100% power. At approximately 1645 hours, it was determined that the Standby Diesel Generator starting air receiver inlet check valves were not being surveillance tested in accordance with the requirements of American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code Section XI and Technical Specification 4.0.5. Unit 1 and Unit 2 entered Technical Specification 3.8.1.1.f at 1645 hours, and all six Standby Diesel Generators were declared technically inoperable. Technical Specification 4.0.3 was immediately invoked permitting up to a 24 hour delay to permit the completion of the missed surveillance. The valves were subsequently, checked to ensure that the valves were, in fact, functional. The cause of the event was determined to be an inadequate review of the function of the Standby Diesel Generator starting air receiver inlet check valves when the Inservice Test Program was initially developed. Corrective actions include testing all twelve diesel starting air receiver inlet check valves, developing a permanent test procedure for the subject valves and supplementing the Unit 1 and Unit 2 Pump and Valves Inservice Test Plans. In addition a comprehensive review of the Inservice Test Program will be performed to develop an Inservice Test Bases Document.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), 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.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
South Texas, Unit 1	05000 498	94	-- 014 --	00	2 OF 4

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

DESCRIPTION OF EVENT:

On August 10, 1994, Unit 1 and Unit 2 were in Mode 1 at 100% power. At approximately 1645 hours, it was determined that the Standby Diesel Generator starting air receiver inlet check valves were not being surveillance tested in accordance with the requirements of American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code Section XI and Technical Specification 4.0.5.

Prior to the determination that this condition existed, questions had been raised as to whether the inlet check valves to the Standby Diesel Generator starting air receivers were in the Inservice Test Program and how they were tested. The Unit 1 and Unit 2 Pump and Valve Inservice Test Plans were reviewed and the subject valves, in fact, had not been included in the Plan and, as such, were not being tested. The South Texas Project Updated Safety Analysis Report Section 9.5.6 description of the Diesel Generator Starting System was reviewed and the determination was made that the subject valves were required to be in the Inservice Test Plan.

The South Texas Project Updated Safety Analysis Report Section 9.5.6, Diesel Generator Starting Air System, states that the check valve between the air dryer and the air receiver ensures that a broken line will not result in a sudden loss of air. In addition, each redundant air receiver is isolated from the nonsafety-related portions of the Starting Air System by one check valve. These functional descriptions clearly show that the subject valves are within the scope of ASME Section XI, Subsection IWV - Inservice Testing of Valves in Nuclear Power Plants. The design function as described in the Updated Safety Analysis Report was compared with the categories and testing requirements in Section XI and concluded the valves are Category C-"valves which are self-actuating in response to some system characteristic such as...flow direction (check valves)." The valves safety function is to close. Therefore, they should be tested in accordance with Subsection IWV-3522 (a) to "prove that the disk travels to the seat promptly on cessation or reversal of flow...by observation of appropriate pressure indication in the system...".

On August 10, 1994, a Station Problem Report was written to document the fact that these valves were, in fact, not part of the Inservice Test Plan. The Unit 1 and Unit 2 Shift Supervisors concluded that a required surveillance of the Standby Diesel Generator starting air receiver inlet checks valves had been missed. Unit 1 and Unit 2 entered Technical Specification 3.8.1.1.f at 1645 hours, and all six Standby Diesel Generators were declared technically inoperable. Technical Specification 4.0.3 was immediately invoked permitting up to a 24 hour delay to permit the completion of the missed surveillance.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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South Texas, Unit 1	05000 498	94	-- 014 --	00	3 OF 4

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

DESCRIPTION OF EVENT: (Continued)

On August 11, 1994, Engineering personnel observed the air receiver pressures when the compressors were idle and the inlet headers vented. No sudden loss of receiver pressure was observed in any of the receivers. These observations demonstrated that the valve disks were traveling promptly to the seat in accordance with Subsection IWV-3522. The engineers observations were documented in a surveillance credit package. The Standby Diesel Generators were declared operable at 1301 hours for Unit 1 and 1357 hours for Unit 2 on August 11, 1994. The plants exited Technical Specifications 3.8.1.1.f and 4.0.3.

CAUSE OF EVENT:

The cause of the event was determined to be an inadequate review of the function of the Standby Diesel Generator starting air receiver inlet check valves. This inadequacy occurred when the Inservice Test Program was initially developed. These valves were omitted from the Program because it was assumed their failure would be readily identified. Also, these valves were identified as diesel components which would be demonstrated operable each time the diesels were tested. Although routine walkdowns, operator rounds and surveillances of the diesels would have identified a failed receiver inlet check valve, there were no specific requirements to examine these valves as part of the existing walkdowns and surveillances.

ANALYSIS OF EVENT:

Noncompliance with Technical Specifications exists when the requirements of the Limiting Condition for Operations and associated action statements are not met within the specified time intervals. The Electrical Power Sources-A. C. Sources Technical Specifications action statement for two or three standby diesels inoperable (3.8.1.1.f), requires restoration of at least two standby diesel generators to operable status within two hours or be in at least hot standby within six hours and cold shutdown within the following 30 hours. Because the Standby Diesel Generator starting air receiver inlet check valves had not been tested and demonstrated operable, the receivers and the associated diesel generators were technically inoperable. Failure to perform a required Technical Specification surveillance is reportable pursuant to 10CFR50.73(a)(2)(i)(B).

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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South Texas, Unit 1	05000 498	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	4 OF 4
		94	-- 014 --	00	

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

CORRECTIVE ACTIONS:

The following actions have been taken or will be taken as a result of this event:

1. All twelve Standby Diesel Generator starting air receiver inlet check valves were satisfactorily tested on August 11, 1994.
2. Surveillance test numbers have been generated in the surveillance database for each of the subject valves and the next performances have been scheduled.
3. The subject valves will be incorporated into permanent test procedures. The procedures will be revised/developed prior to the next scheduled performance.
4. The Unit 1 and Unit 2 Pump and Valve Inservice Test Plans will be supplemented to include the subject valves. This supplement will be submitted by October 26, 1994.

The South Texas Project currently does not have a Bases Document to support the scope of its Inservice Test Program. The South Texas Project had previously identified the need for a comprehensive review of the Program and the development of such a Bases Document. This review and Bases Document will provide a technical justification for the inclusion or exclusion from the Program for every ASME Class 1, 2 and 3 pump and valve at the South Texas Project. The Bases Document will be completed by March 15, 1995.

ADDITIONAL INFORMATION

During the past three years, there have been two previous Licensee Event Reports submitted to the Nuclear Regulatory Commission which document a missed ASME Section XI Code Surveillance. The Licensee Event Reports are as follows:

- Unit 2 Licensee Event Report 91-002 documented a failure to meet the requirements of Technical Specifications due to the failure to perform a required ASME Section XI post-maintenance test. The causes of that event were determined to be less than adequate procedural controls which allowed the planner to defer completion of the pressure test data sheet, less than adequate review of the revised work package by the cognizant system engineer and less than adequate review of the post maintenance test requirements prior to return to service.
- Unit 1 Licensee Event Report 93-004 documented a failure to meet the requirements of Technical Specification due to a failure to perform a surveillance required by ASME Section XI. The cause of the that event was determined to be an error in the plant surveillance database which shows that the Reactor Containment Building System Valve Operability Test procedure could only be performed in Modes 5 and 6 and an incorrect interpretation by Operations personnel that increased the frequency surveillances are not required if the current plant mode is not shown on the surveillance schedule sheet.