

# The Light company

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

November 15, 1995  
ST-HL-AE-5232  
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 95-007  
Failure to Fully Meet the Requirements of Technical Specifications  
Due to Not Placing the Control Room Makeup and Cleanup  
Filtration System in the Required Mode of Operation

Pursuant to 10CFR50.73, South Texas Project submits the attached Unit 2 Licensee Event Report 95-007 regarding a failure to fully meet the requirements of Technical Specifications due to not placing the Control Room Makeup and Cleanup Filtration System in the required mode of operation. 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) 972-7988.



R. E. Masse  
Unit 2 Plant Manager

KJT/lf

Attachment: LER 95-007 (South Texas, Unit 2)

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LER-95\5232

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

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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  
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)

Failure to fully meet the requirements of Technical Specifications due to not placing the Control Room Makeup and Cleanup Filtration System in the required mode of operation.

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
10	17	95	95	-- 007	-- 00	11	15	95		05000
OPERATING MODE (9)			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
N			<input checked="" type="checkbox"/> 20.2201(b) <input type="checkbox"/> 20.2203(a)(2)(v) <input checked="" type="checkbox"/> 50.73(a)(2)(i) <input type="checkbox"/> 50.73(a)(2)(viii)							
POWER LEVEL (10)			<input type="checkbox"/> 20.2203(a)(1) <input type="checkbox"/> 20.2203(a)(3)(i) <input type="checkbox"/> 50.73(a)(2)(ii) <input type="checkbox"/> 50.73(a)(2)(x)							
000			<input type="checkbox"/> 20.2203(a)(2)(i) <input type="checkbox"/> 20.2203(a)(3)(ii) <input type="checkbox"/> 50.73(a)(2)(iii) <input type="checkbox"/> 73.71							
			<input type="checkbox"/> 20.2203(a)(2)(ii) <input type="checkbox"/> 20.2203(a)(4) <input type="checkbox"/> 50.73(a)(2)(iv) <input type="checkbox"/> OTHER							
			<input type="checkbox"/> 20.2203(a)(2)(iii) <input type="checkbox"/> 50.36(c)(1) <input type="checkbox"/> 50.73(a)(2)(v) <input type="checkbox"/> Specify in Abstract below or in NRC Form 366A							
			<input type="checkbox"/> 20.2203(a)(2)(iv) <input type="checkbox"/> 50.36(c)(2) <input type="checkbox"/> 50.73(a)(2)(vii)							

## LICENSEE CONTACT FOR THIS LER (12)

NAME

TELEPHONE NUMBER (Include Area Code)

Scott M. Head - Sr. Consulting Engineer

(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 October 17, 1995, Unit 2 was defueled with the core offloaded to the spent fuel pool. A determination was made that the Technical Specification requirement to place the Control Room Makeup and Cleanup Filtration System in the makeup and cleanup filtration mode of operation was not met during a recently completed Unit 2 C-train electrical system outage when the C-train Control Room Ventilation Manual Initiation and Automatic Actuation Logic and Actuation Relays had been inoperable for 48 hours. The C-train Control Room Ventilation Manual Initiation and Automatic Actuation Logic and Actuation Relays had been inoperable for approximately 55 hours during the electrical system outage. The cause of this event was failure to identify all Technical Specification Limiting Conditions of Operation requirements for components affected by an electrical bus outage. Corrective actions taken were discussing the lessons learned from this event with the individuals involved and to include the lessons learned in future licensed operator training.

**LICENSEE EVENT REPORT (LER)**  
**TEXT CONTINUATION**

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
South Texas, Unit 2	05000 499	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 4
		95	-- 007	-- 00	

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

**DESCRIPTION OF EVENT:**

On October 17, 1995, Unit 2 was defueled with the core offloaded to the spent fuel pool. A determination was made that Technical Specification requirements were not met during a recently completed C-train electrical system outage when the C-train Control Room Ventilation Manual Initiation and Automatic Actuation Logic and Actuation Relays had been inoperable for approximately 55 hours.

A review of this event determined that the following Technical Specification Limiting Conditions of Operation are applicable for the Control Room Makeup and Filtration System in Modes 5 and 6.

Technical Specification 3.3.2.10.c for Modes 5 and 6 states that with the number of OPERABLE channels of Control Room Ventilation Manual Initiation and Automatic Actuation Logic and Actuation Relays less than the minimum channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or initiate and maintain operation of the Control Room Makeup and Cleanup Filtration System in the recirculation and makeup filtration mode of operation at 100% capacity.

Technical Specification 3.3.2.10.d for Modes 5 and 6 states that with the number of OPERABLE channels of Control Room Intake Air Radioactivity less than the minimum channels OPERABLE requirement, within 1 hour initiate and maintain operation of the Control Room Makeup and Cleanup Filtration System in the recirculation and makeup filtration mode of operation at 100% capacity.

Technical Specification 3.7.7.a for Modes 5 and 6 states that with one Control Room Makeup and Cleanup Filtration System inoperable, restore the inoperable system to OPERABLE status within 7 days or initiate and maintain the remaining OPERABLE Control Room Makeup and Cleanup Filtration Systems in the recirculation and makeup air filtration mode of operation.

The Unit 2 C-train electrical system was deenergized for outage maintenance activities at 1807 hours on October 7, 1995. The effect of the electrical train outage on Technical Specification requirements was reviewed and several Technical Specification actions were entered. The actions entered were documented and tracked in the Control Room by component affected by the electrical train outage. During the review of the impact of the electrical train outage on components listed in Table 3.3-3 of the Technical Specifications, the only affected component noted was the C-train Control Room Ventilation System Intake Radiation Monitor, RT-8034. The Technical Specification requirement to initiate, within 1 hour, and maintain operation of the Control Room Makeup and Cleanup Filtration System in the recirculation and makeup filtration mode of operation at 100% capacity was met. The effect of the electrical train outage on the Control Room Ventilation C-train Manual Initiation and Automatic Actuation Logic and Actuation Relays components listed in Item 10.c of Table 3.3-3 of the Technical Specification was not considered and these affected components were not documented and tracked in the Control Room.



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	95	-- 007	-- 00	3 OF 4

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

DESCRIPTION OF EVENT (CONTINUED):

The C-train vital 120 volt AC power panel that powers the C-train Control Room Ventilation System Intake Radiation Monitor, RT-8034 was reenergized at 0256 hours on October 9, 1995. Channel checks were performed on all affected radiation monitors to verify their operability. Radiation Monitor, RT 8034, was declared operable and the Control Room Makeup and Cleanup Filtration System was returned to the normal mode of operation at 0439 hours. The C-train Vital 125 volt DC electrical bus which provides power to Control Room Ventilation C-train Manual Initiation and Automatic Actuation Logic and Actuation Relays components remained deenergized.

At 1807 hours on October 9, 1995, the Control Room Ventilation C-train Manual Initiation and Automatic Actuation Logic and Actuation Relays had been inoperable for 48 hours due to the associated power panel electrical outage. The Control Room Makeup and Cleanup Filtration System remained in the normal mode of operation contrary to Technical Specification requirements. Operability of the Control Room Ventilation C-train Manual Initiation and Automatic Actuation Logic and Actuation Relays was restored at 0128 hours on October 10, 1995 when electrical power was restored to the power panel. The minimum number of OPERABLE channels of Control Room Ventilation Manual Initiation and Automatic Actuation Logic and Actuation Relays required by Technical Specifications was now met.

CAUSE OF EVENT:

The cause of this event was failure to identify all Technical Specification Limiting Conditions of Operation requirements for components affected by an electrical bus outage.

ANALYSIS OF EVENT

Failure to meet the requirements of Technical Specifications is reportable pursuant to 10CFR50.73(a)(2)(i)(B). The minimum number of OPERABLE channels for Control Room Ventilation Manual Initiation and Automatic Actuation Logic and Actuation Relays was not met for a period of approximately 55 hours. After 48 hours in this condition, the Control Room Makeup and Cleanup Filtration System was not placed in the recirculation and makeup filtration mode of operation at 100% capacity as required by Technical Specifications.

The Control Room Ventilation Manual Initiation and Automatic Actuation Logic and Actuation Relays function to place their respective train of the Control Room Makeup and Cleanup Filtration System in the recirculation and makeup filtration mode during an accident. The A-train and the B-train Control Room Ventilation Manual Initiation and Automatic Actuation Logic and Actuation Relays were operable during the event and capable of placing their respective train of the Control Room Makeup and Cleanup Filtration System in the recirculation and makeup filtration mode to produce 100 per cent flow for the Control Room Envelope.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
South Texas, Unit 2	05000 499	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	4 OF 4
		95 --	007 --	00	

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

ANALYSIS OF EVENT (Continued)

Technical Specification 3.7.7.c allows 7 days to restore an inoperable Control Room Makeup and Cleanup Filtration System to OPERABLE status before action must be taken to initiate and maintain the remaining OPERABLE Control Room Makeup and Cleanup Filtration Systems in the recirculation and makeup air filtration mode. This was an additional confusing factor in the failure of the Control Room ventilation system to be properly aligned in that this 7 day allowed outage time is inconsistent with the 48 hour allowed outage time for Technical Specifications 3.3.2.10a and c. There were no adverse safety or radiological consequences from this event.

CORRECTIVE ACTION:

1. The lessons learned from this event were discussed with the individuals involved.
2. A Training Bulletin will be issued by December 1995 which will discuss the applicability of Table 3.3-3 of the Technical Specifications to the deenergization of the electrical power supply for the Control Room Ventilation Manual Initiation and Automatic Actuation Logic and Actuation Relays.
3. The lessons learned from this event will be included in licensed operator training by January 1996.

ADDITIONAL INFORMATION:

The allowed outage times of the actuation circuits for the Control Room Makeup and Cleanup Filtration Systems of Technical Specification Limiting Condition of Operation 3.3.2.10 are inconsistent with the allowed outage times of Technical Specification 3.7.7.a.

A Licensing Amendment will be submitted with the Improved Technical Specifications proposal, scheduled for submittal during the First Quarter 1996, to change Limiting Condition of Operation 3.3.2.10 of Table 3.3-3 to more consistently reflect the function and allowed outage times for circuits affecting the Control Room Envelope.

There have been no previous events reported by the South Texas Project to the Nuclear Regulatory Commission within the last three years regarding a failure to identify all Technical Specification Limiting Condition of Operation requirements for components affected by an electrical bus outage.