

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) South Texas, Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 4 9 8	PAGE (3) 1 OF 0 4
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TITLE (4)
Inadequate Surveillance Performed on a Control Room Intake Air Radioactivity Monitor

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 NAMES		DOCKET NUMBER(S)
01	10	88	88	005	00	02	09	88			0 5 0 0 0
THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)											

OPERATING MODE (8) 5	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) 0100	20.405(a)(1)(i)	50.36(e)(1)	50.73(a)(2)(v)	73.71(c)
	20.405(a)(1)(ii)	50.36(e)(2)	50.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 365A)
	20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(vii)(A)	
	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)(k)	

LICENSEE CONTACT FOR THIS LER (12)

NAME Charles Ayala - Supervising Licensing Engineer	TELEPHONE NUMBER 5 1 2 9 7 2 - 8 6 2 8
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS
D									

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

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single space typewritten lines) (16)

ABSTRACT

At approximately 1148 hours on January 10, 1988, with Unit 1 in Mode 5, a licensed Reactor Operator noticed during preparation of Modes 5 and 6 Operator Logs that Control Room Intake Air Radioactivity Monitor readings were constant at 6.10 E-05 uci/cc. A log review revealed that operators had been recording the Hi-Alarm setpoint rather than actual gaseous activity for the channel check since January 8, 1988. The radioactivity monitor was displaying the Hi-Alarm setpoint because the monthly surveillance procedure did not ensure that the monitor display was returned to normal. This resulted in missing the channel check surveillances specified in Technical Specifications which are required to be performed every 12 hours. The root causes of this event were procedure error and operator error. To prevent recurrence of the event, procedures will be revised and additional guidance will be given to operators on how to record and evaluate activity readings.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		8 8	- 0 0 5	- 0 0	0 2	OF 0 4

TEXT (If more space is required, use additional NRC Form 365A's) (17)

DESCRIPTION OF OCCURRENCE:

On January 8, 1988, with Unit 1 of the South Texas Project Electric Generating Station (STPEGS) in Mode 5, a routine surveillance was performed on the A Train Control Room Emergency Ventilation System. An actuation test was performed in which a technician (non-licensed) lowered the Hi-Alarm setpoint for the Control Room Intake Air Radioactivity Monitor (RT-8034) from 6.10 E-05 uci/cc to a value below the monitored activity in order to cause an actuation of all operable Control Room Emergency HVAC trains in the recirculation mode. The setpoint was restored to the Hi-Alarm value after actuation was verified. The licensed Reactor Operator verified the setpoint as being restored at the completion of testing. However, the surveillance procedure did not require that the "GAS" pushbutton at the Radiation Monitor Panel (RM-23) for RT-8034 be depressed to re-display the monitored activity, which at the time was approximately 1.0 E-06 uci/cc. Therefore, the display was still showing the Hi-Alarm setpoint of 6.10 E-05 uci/cc.

During shift turnover, the Reactor Operators did not recognize that RT-8034 was displaying a value that was approximately 60 times higher than the previous log entry. The RM-11 Radiation Monitor Console was available, but was used for verifying Radiation Monitoring System status, and not to display monitored activity.

During performance of the channel check surveillance required by Technical Specification 4.3.2.1, Table 4.3-2(10.d), the evening shift Reactor Operator on January 8, 1988, recorded the setpoint value (6.10 E-05 uci/cc) from the RM-23 in the space provided for RT-8034 measured activity on the logsheet form. He did not question the reading even though it was 60 times greater than the activity level recorded previously. The value was also 60 times greater than the activity recorded for radiation monitor RT-8033, which monitors the same parameter. Limits for measured radioactivity are not currently included in the Modes 5 and 6 Operator Logs. Note that wide variations in monitor readings would not have occurred since the plant had not yet been critical and no radioactivity had been produced.

The channel check surveillances required by Technical Specification 4.3.2.1 are performed once per eight hour shift at STPEGS. The operators are directed in Modes 5 and 6 Operator Logs to take their readings from the Radiation Monitoring Panel (RM-23). They are not given an alternate method for taking measurements. A requirement to evaluate the difference between channels measuring the same parameter was not included in the Modes 5 and 6 Operator Logs.

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TEXT (If more space is required, use additional NRC Form 368A's) (17)

Five shift turnovers occurred with none of the personnel involved recognizing that the value displayed by the RM-23 was the Hi-Alarm setpoint. At approximately 1148 hours on January 10, 1988, the day shift licensed Reactor Operator noticed that the readings on RT-8034 were not changing and upon reviewing the log, found the same indication for the previous five shifts. A review of the control room log showed that surveillance was performed for the A Train Control Room Emergency Ventilation System on January 8, 1988, and all readings taken on RT-8034 since then had been of the Hi-Alarm value instead of activity level.

The Reactor Operator immediately informed the Unit Supervisor (SRO-licensed) and together they went to the RM-23 console. When the Reactor Operator depressed the "GAS" pushbutton, a valid activity level was displayed. The Unit Supervisor then notified the Shift Supervisor, who directed that historical printout of both RT-8034 and RT-8033 readings be made to verify that measured levels were normal during the interval January 8, 1988, to January 10, 1988. Both the 24-hour printout and the 28-day printout showed no unusual readings. In addition operability checks of RT-8034 during the period January 8 to January 10 were performed satisfactorily.

The NRC was notified of the event on January 11, 1988, at 1118 hours.

CAUSE OF OCCURRENCE:

The root causes for this event are:

1. The surveillance procedure for the Control Room Emergency Ventilation System was inadequate in that it had no step that returned the monitor display to read the measured activity.
2. A cognitive error occurred in that the operators did not realize that the readings being taken were 60 times greater than they should have been.

A contributing factor also existed in that an operator walking down the Radiation Monitoring Panel (RM-23) sees no indicating light to show that a setpoint level is being displayed rather than activity. The RM-23 is not designed to indicate that a setpoint value is being displayed.

ANALYSIS OF EVENT:

This event had no impact on the health and safety of the public because the Control Room Intake Air Radioactivity Monitors remained operable. In the event of measured levels in excess of setpoint value, the monitor would have initiated an ESF actuation and placed the Control Room Emergency Ventilation System in the recirculation mode. However, this event is reportable as a Licensee Event Report under 10CFR50.73(a)(2)(i) because the surveillance interval limit of Technical Specification 4.3.2.1, Table 4.3-2(10.d), was exceeded. (Channel checks are to be performed every 12 hours, with a maximum interval of 15 hours.)

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	DIVISION NUMBER		OF
	0 5 0 0 0					

TEXT IF NO REPORT IS REQUIRED, USE ADDITIONAL NRC FORM 368A (17)

CORRECTIVE ACTIONS:

The following corrective actions will be taken to prevent recurrence of the event:

1. Operations procedures which affect the Radiation Monitoring Panel displays will be reviewed and revised as necessary to ensure that upon completion of tests, surveillances, etc., the monitors are displaying measured activity values. This will be completed by February 10, 1988.
2. Operating log procedures will be reviewed and revised as necessary to ensure that radiation monitor readings are compared to limits and/or against each other. Operating log procedures will be revised to include specific instructions for the use of either the RM-11 Radiation Monitoring Console or the RM-23 Radiation Monitoring Panel when recording radioactivity monitor readings as required for channel check surveillances. This will be completed by February 10, 1988.
3. Operators will receive additional guidance on detailed operation of the Radiation Monitor. This will be completed by February 10, 1988.

ADDITIONAL INFORMATION:

A similar event was previously reported at Unit 1 via LER 87-022 which involved the Toxic Gas Monitors. The procedure under which channel checks were performed did not have a provision for returning the system to an operable status. As noted in LER 87-022, HL&P will review and revise as necessary other operator logs for channel check requirements. This activity is scheduled to be completed by April 1, 1988.

NL.LER88005

The Light company

Houston Lighting & Power

P.O. Box 1700 Houston, Texas 77001 (713) 228-9211

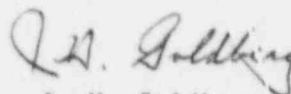
February 9, 1988
ST-HL-AE-2502
File No.: G26
10CFR50.73

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

South Texas Project Electric Generating Station
Unit 1
Docket No. STN 50-498
Licensee Event Report 88-005 Regarding
Inadequate Surveillance Performed on a Control Room
Intake Air Radioactivity Monitor

On January 11, 1988, Houston Lighting & Power Company (HL&P) notified the NRC of a reportable event due to failure to maintain a surveillance interval as specified in Technical Specification 4.3.2.1, Table 4.3-2(10.d), for the Control Room Intake Air Radioactivity Monitor. Operability of the monitor was not affected. This event had no adverse safety or radiological consequences since the plant had not yet been critical and no radioactivity had been produced. HL&P submits the attached Licensee Event Report (LER 88-005) in accordance with 10CFR50.73.

If you should have any questions on this matter, please contact Mr. C.A. Ayala at (512) 972-8628.



J. H. Goldberg
Group Vice President, Nuclear

JHG/PLW/clr

Attachment: Licensee Event Report 88-005 Regarding
Inadequate Surveillance Performed on a
Control Room HVAC Intake Air
Radioactivity Monitor

LER
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cc:

Regional Administrator, Region IV
Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, TX 76011

N. Prasad Kadambi, Project Manager
U. S. Nuclear Regulatory Commission
1 White Flint North
11555 Rockville Pike
Rockville, MD 20859

Dan R. Carpenter
Senior Resident Inspector/Operations
c/o U. S. Nuclear Regulatory
Commission
P. O. Box 910
Bay City, TX 77414

J. R. Newman, Esquire
Newman & Holtzinger, P.C.
1615 L Street, N.W.
Washington, DC 20036

R. L. Range/R. P. Verret
Central Power & Light Company
P. O. Box 2121
Corpus Christi, TX 78403

R. John Miner (2 copies)
Chief Operating Officer
City of Austin Electric Utility
721 Barton Springs Road
Austin, TX 78704

R. J. Costello/M. T. Hardt
City Public Service Board
P. O. Box 1771
San Antonio, TX 78296

Rufus S. Scott
Associate General Counsel
Houston Lighting & Power Company
P. O. Box 1700
Houston, TX 77001

INFO
Records Center
1100 Circle 75 Parkway
Atlanta, Ga. 30339-3064