

NRC Form 388  
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/86

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) <b>Grand Gulf Nuclear Station - Unit 1</b>										DOCKET NUMBER (2) <b>0 5 0 0 0 4 1 6</b>				PAGE (3) <b>1 OF 3</b>	
TITLE (4) <b>Standby Gas Treatment Filter Train Heater Fails Surveillance</b>															
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 <b>NA</b>				DOCKET NUMBER(S) <b>0 5 0 0 0</b>		
<b>0</b>	<b>2</b>	<b>15</b>	<b>8</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>7</b>	<b>8</b>	<b>6</b>	<b>0 5 0 0 0</b>
OPERATING MODE (9) <b>4</b>		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)													
POWER LEVEL (10) <b>0 0 10</b>		<input type="checkbox"/> 20.402(b) <input type="checkbox"/> 20.406(a)(1)(i) <input type="checkbox"/> 20.406(a)(1)(ii) <input type="checkbox"/> 20.406(a)(1)(iii) <input type="checkbox"/> 20.406(a)(1)(iv) <input type="checkbox"/> 20.406(a)(1)(v)				<input type="checkbox"/> 20.406(c) <input type="checkbox"/> 30.36(c)(1) <input type="checkbox"/> 30.38(c)(2) <input checked="" type="checkbox"/> 30.73(a)(2)(i) <input type="checkbox"/> 30.73(a)(2)(ii) <input type="checkbox"/> 30.73(a)(2)(iii)				<input type="checkbox"/> 30.73(a)(2)(iv) <input type="checkbox"/> 30.73(a)(2)(v) <input type="checkbox"/> 30.73(a)(2)(vi) <input type="checkbox"/> 30.73(a)(2)(vii)(A) <input type="checkbox"/> 30.73(a)(2)(vii)(B) <input type="checkbox"/> 30.73(a)(2)(x)				<input type="checkbox"/> 73.71(b) <input type="checkbox"/> 73.71(c) OTHER (Specify in Abstract below and in Text, NRC Form 388A)	
LICENSEE CONTACT FOR THIS LER (12)															
NAME <b>Ronald Byrd/Licensing Engineer</b>										TELEPHONE NUMBER AREA CODE <b>6 0 1 1</b> NUMBER <b>4 1 3 7 1 2 1 4 9</b>					
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)															
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS						
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)

In March 1985, heaters in Standby Gas Treatment (SBGT) filter trains "A" and "B" were replaced because the originally installed heaters could not meet the qualification requirements of 10CFR50.49. The original heaters had been sized to dissipate a nominal 50 KW of power. The Technical Specification requires verification at least once per 18 months that the SBGT heaters dissipate 50 +/- 5 KW, based on the nominal value of 50 KW. The qualified replacement heater has a 48 KW nominal dissipation. During the retest for this change both heaters passed the dissipation criteria; however, the "A" train heater was marginal at 45.6 KW. The Technical Specification was not revised to reflect a nominal value of 48 KW as part of the design change process.

Due to concerns raised over the margin of the heaters when compared to Technical Specification values, a surveillance test was performed on February 15, 1986 to check the heaters against the Technical Specification surveillance criteria of 50 +/- 5 KW. The "B" train heater failed the test with a power dissipation of approximately 44.9 KW. Discretionary enforcement was granted to allow for a scheduled plant startup and for time to process a Technical Specification change. The operation and condition prohibited by the plant Technical Specifications is reportable pursuant to 10CFR50.73(a)(2)(i)(B).

8603210341 860317  
PDR ADOCK 05000416  
S PDR

IE22  
111

NRC Form 366A  
(9-83)

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO 3150-0104

EXPIRES 8/31/86

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (8)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Grand Gulf Nuclear Station - Unit 1	0 5 0 0 0 4 1 6 8 6	8 6	0 0 5	0 0	0 2	OF	0 3

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

## A. REPORTABLE OCCURRENCE

On February 15, 1986, during a non-scheduled performance of the Standby Gas Treatment (SBGT) Heater Check surveillance, the heater for filter train "B" was found to dissipate approximately 44.9 KW which is less than the Technical Specification minimum requirement of 45 KW. The Nuclear Regulatory Commission (NRC), Region II office, granted Mississippi Power and Light (MP&L) Co. discretionary enforcement on Limiting Condition for Operation (LCO) 3.6.6.3 to allow for a scheduled February 15, 1986 plant restart and for sufficient time for the NRC to process a proposed Technical Specification change that would lower the minimum power dissipation value for the heaters. The situation is reportable pursuant to 10CFR50.73(a)(2)(i)(B) as an operation or condition prohibited by the plant's Technical Specifications.

## B. INITIAL CONDITIONS

The plant was in mode 4, Cold Shutdown, at the time of the surveillance test. The plant had shutdown on February 12, 1986 to repair a leaking recirculation pump seal.

## C. DESCRIPTION OF OCCURRENCE

Technical Specification 4.6.6.3.d.5 requires verification at least once per 18 months that the SBGT heaters dissipate 50 +/- 5 KW when tested in accordance with ANSI N510-1975. This test was performed in March, 1985, following the implementation of design change DCP 84/3109 which replaced the original heater with a heater that could meet the qualification requirements of 10CFR50.49. The test results were acceptable at that time; however, the "A" train heater power dissipation was found to be marginal at 45.6 KW. The original heater was rated at 50 KW nominal. The new heater is rated at 48 KW nominal.

Engineering calculations showed that approximately 21.5 KW of heat dissipation is needed to meet the design requirements of the SBGT system (reducing 150 degree F inlet air at 4000 CFM flow from 100 percent to 70 percent humidity). Therefore, the newly installed heater was more than adequate to perform the required design function.

A Technical Specification Change Request had been initiated to lower the minimum value of 50 +/- 5 KW.

NRC Form 366A  
(9-83)

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES 9/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
Grand Gulf Nuclear Station - Unit 1	0 5 0 0 0 4 1 6 8 6	-	0 0 5	-	0 0 0 3	OF 0 3

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

On February 13, 1986, it was discovered that questions still existed concerning this matter. At that time a decision was made to reperform the surveillance test. On February 15, 1986, the SBTG train "B" heater failed the surveillance test. The power dissipated by the heater was calculated to be approximately 44.9 KW which was less than the required minimum of 45 KW. The SBTG system "B" train was declared inoperable. The "A" train test was completed with acceptable results on February 16, 1986.

Discretionary enforcement on LCO 3.6.6.3 was granted by the NRC Region II office in a telephone call on February 15, 1986. This allowed plant restart and power operation to commence on February 16, 1986. The situation was documented in a letter to the Regional Administrator dated February 17, 1986.

## D. APPARENT CAUSE

Both the original and new heaters were sized by the suppliers to have the capability to decrease 100 percent humid air at 4000 CFM flow to at least 70 percent humid air. The original heater was sized at 50 KW nominal by CVI Corporation. However, the original heater could not be qualified to 10CFR50.49 requirements. The qualified replacement heater purchased from Ellis and Watts was sized at 48 KW nominal. A failure to submit a Technical Specification change when the design change was implemented has been identified as the root cause of this problem.

## E. SUPPLEMENTAL CORRECTIVE ACTION

A proposed change to the Technical Specifications was submitted to the NRC on February 17, 1986, to reduce the heat dissipation requirement of the heaters in the SBTG system from 50 +/- 5 KW to 48 +/- 5 KW. The operability of the SBTG system will be controlled to the new proposed requirements pending NRC action on this matter.

## F. SAFETY ASSESSMENT

As discussed previously, the heater dissipation of 44.9 KW does not adversely affect the safety function of the SBTG system. A minimum of 21.5 KW power dissipation by each SBTG train heater will fulfill design requirements.



# MISSISSIPPI POWER & LIGHT COMPANY

*Helping Build Mississippi*

P. O. BOX 1640, JACKSON, MISSISSIPPI 39215-1640

March 17, 1986

O. D. KINGSLEY, JR.  
VICE PRESIDENT - NUCLEAR OPERATIONS

Document Control Desk  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Gentlemen:

SUBJECT: Grand Gulf Nuclear Station  
Unit 1  
Docket No. 50-416  
License No. NPF-29  
File: 0260/L-835.0  
Standby Gas Treatment Filter  
Train Heater Fails  
Surveillance  
LER 86-005-0  
AECM-86/0073

Attached is Licensee Event Report (LER) 86-005-0 which is a final report.

Yours Truly,

ODK:rg  
Attachment

cc: Mr. T. H. Cloninger (w/a)  
Mr. R. B. McGehee (w/a)  
Mr. N. S. Reynolds (w/a)  
Mr. H. L. Thomas (w/o)  
Mr. R. C. Butcher (w/a)

Mr. James M. Taylor, Director (w/a)  
Office of Inspection & Enforcement  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Dr. J. Nelson Grace, Regional Administrator (w/a)  
U. S. Nuclear Regulatory Commission  
Region II  
101 Marietta St., N. W., Suite 2900  
Atlanta, Georgia 30323

IE22  
11