

NRC Form 366  
(9-83)U.S. NUCLEAR REGULATORY COMMISSION  
APPROVED OMB NO. 3150-0104  
EXPIRES 8/31/85

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)

Grand Gulf Nuclear Station - Unit 1

DOCKET NUMBER (2)

0 5 0 0 0 4 1 6 1 OF 0 2

PAGE (3)

TITLE (4)

Containment Isolation and Diesel Generator Failure to Start

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)				
0	3	2	4	8	4	0	1	6	0	0	0	4		
0	3	2	4	8	4	0	1	6	0	0	0	4		
OPERATING MODE (9)			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §. (Check one or more of the following) (11)											
4			20.402(b)			20.406(c)			X 50.73(a)(2)(iv)			73.71(b)		
POWER LEVEL (10)			20.406(a)(1)(i)			50.36(a)(1)			X 50.73(a)(2)(v)			73.71(c)		
0 0 0			20.406(a)(1)(ii)			50.36(a)(2)			50.73(a)(2)(vii)			X OTHER (Specify in Abstract below and in Text, NRC Form 366A)		
			20.406(a)(1)(iii)			50.73(a)(2)(i)			50.73(a)(2)(viii)(A)			Reg Guide 1.108		
			20.406(a)(1)(iv)			50.73(a)(2)(ii)			50.73(a)(2)(viii)(B)					
			20.406(a)(1)(v)			50.73(a)(2)(iii)			50.73(a)(2)(ix)					

LICENSEE CONTACT FOR THIS LER (12)

NAME

TELEPHONE NUMBER

Jerry L. Parker/Licensing Engineer

AREA CODE

6 0 1 4 3 7 - 2 1 4 9

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC

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 fifteen single-space typewritten lines) (16)

While performing a special test to measure the response time of several LPCS and LPCI "A" isolation valves, a procedure error caused a Division 1 containment isolation and generated an auto start signal to the Division 1 Diesel Generator. The diesel generator failed to start.

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NRC Form 366A  
(9-83)

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

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 4 -	0 1	6	0 0	0 2	OF 0 2

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

At 0135 hours on March 24, 1984, while the plant was in Cold Shutdown, a special test was being performed to measure the response time of several LPCS and LPCI "A" isolation valves. An ECCS Test Switch had been installed into the isolation logic to allow simulating an ECCS actuation signal. Installation of the ECCS Test Switch also prevents the diesel generator start and closure of the non-ECCS isolation valves. After actuation of the logic, the procedure directed the removal of the ECCS test switch before the logic had been reset. When this was done, the automatic bypass signal was removed and a full Division 1 containment isolation resulted. This isolation included Shutdown Cooling isolation, RWCU isolation, trip of CRD, auto start of Standby Service Water, and auto start of the Drywell Purge Compressor. A valid start signal was also sent to the Division 1 Diesel Generator, but it failed to start.

The containment isolation was a direct result of the approved temporary procedure which was not technically correct. A memo was written to all engineers stressing the necessity of technical adequacy in the writing and review of procedures. Shutdown Cooling was returned to operation in 10 minutes. Full restoration from the containment isolation was accomplished in about 30 minutes. No equipment was damaged by the isolation and the event had no safety consequences.

Extensive evaluation and testing was performed to determine the cause of the diesel generator failure to start. Investigation of the diesel generator emergency start circuitry revealed no component failures or inadequacies. When given another start signal, the diesel generator started and ran with no problems. Although the conditions of the failure to start were repeated, a total of eleven actual diesel generator starts were performed, and individual components of the start logic and mechanism were repeatedly tested. The failure to start could not be repeated and nothing could be found which could have caused the failure. After all troubleshooting and functional testing, which revealed no problems, the functional surveillance test was performed on the diesel generator and it was declared operational.

The Division 1 Diesel Generator failure to start was an isolated and unrepeatable event. In assessment of the safety consequences of this failure, it is not likely to occur again in light of the extensive evaluation and testing which could not repeat the problem. However, if it were to occur again when needed, the redundant Division 2 Diesel Generator is available to perform the same functions.

In accordance with Regulatory Guide 1.108 and Technical Specification 4.8.1.1.3, this Division 1 Diesel Generator failure to start is reported as a valid failure. This is the first valid failure in the last 100 valid starts. The current surveillance test interval is monthly in accordance with Regulatory Guide 1.108 position C.2.d. This is a final report.



# MISSISSIPPI POWER & LIGHT COMPANY

*Helping Build Mississippi*

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

April 23, 1984

NUCLEAR PRODUCTION DEPARTMENT

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-13  
File: 0260/L-835.0  
Containment Isolation and Diesel  
Generator Failure to Start  
LER 84-016-0  
AECM-84/0242

Attached is Licensee Event Report (LER) 84-016-0 which is a final report.

Yours truly,

L. F. Dale  
Manager of Nuclear Services

EBS/SHH:rg  
Attachment

cc: Mr. J. B. Richard (w/a)  
Mr. R. B. McGehee (w/o)  
Mr. T. B. Conner (w/o)  
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11