

NRC Form 306  
(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	PAGE (3) OF 0 2
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TITLE (4) Lack of Manual Isolation for Ten Valves		
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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 4	1 8	8 4	8 4	0 1 9	0 0 0	5 1	7 8	8 4	NA		0 5 0 0 0																																				
<table border="1" style="width:100%"> <tr> <td>OPERATING MODE (9) 4</td> <td colspan="11">THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)</td> </tr> <tr> <td rowspan="5">POWER LEVEL (10) 0 1 0 1 0</td> <td>20.402(b)</td> <td>20.406(e)</td> <td>50.73(e)(2)(iv)</td> <td>73.71(b)</td> </tr> <tr> <td>20.406(a)(1)(i)</td> <td>50.36(e)(1)</td> <td>50.73(e)(2)(v)</td> <td>73.71(e)</td> </tr> <tr> <td>20.406(a)(1)(ii)</td> <td>50.36(e)(2)</td> <td>50.73(e)(2)(vii)</td> <td rowspan="3">OTHER (Specify in Abstract below and in Text, NRC Form 306A)</td> </tr> <tr> <td>20.406(a)(1)(iii)</td> <td>50.73(e)(2)(i)</td> <td>50.73(e)(2)(viii)(A)</td> </tr> <tr> <td>20.406(a)(1)(iv)</td> <td>50.73(e)(2)(ii)</td> <td>50.73(e)(2)(viii)(B)</td> </tr> <tr> <td></td> <td>20.406(a)(1)(v)</td> <td>50.73(e)(2)(iii)</td> <td>50.73(e)(2)(k)</td> <td></td> </tr> </table>												OPERATING MODE (9) 4	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)											POWER LEVEL (10) 0 1 0 1 0	20.402(b)	20.406(e)	50.73(e)(2)(iv)	73.71(b)	20.406(a)(1)(i)	50.36(e)(1)	50.73(e)(2)(v)	73.71(e)	20.406(a)(1)(ii)	50.36(e)(2)	50.73(e)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 306A)	20.406(a)(1)(iii)	50.73(e)(2)(i)	50.73(e)(2)(viii)(A)	20.406(a)(1)(iv)	50.73(e)(2)(ii)	50.73(e)(2)(viii)(B)		20.406(a)(1)(v)	50.73(e)(2)(iii)	50.73(e)(2)(k)	
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NAME		TELEPHONE NUMBER	
Jerry L. Parker/Licensing Engineer		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 NPDs	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDs		

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)

On April 18, 1984, a circuit design deficiency which affected ten isolation valves was discovered. These valves would isolate from two high drywell pressure signals, two reactor low level signals, or a manual initiation with a concurrent high drywell pressure or low level signal. Technical Specifications, however, require the valves to isolate on a manual initiation with no reference to concurrent high drywell or low level signals. A design change was implemented which altered the logic such that the valves would isolate with a manual initiation signal without a concurrent high drywell pressure or reactor low level signal.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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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 9	— 0 1 0	0 2	OF	0 2

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

At 1630 hours on April 18, 1984, while the plant was in Cold Shutdown, a circuit design deficiency was discovered. Ten isolation valves were affected by this deficiency. The valves affected were Containment and Drywell isolation valves for Plant Service Water, Instrument Air and Floor and Equipment Drain systems. These valves were provided with logic, called trip logic with override, which permitted reopening the valves after an isolation without resetting the isolation signal. This feature was provided as an enhancement to increase plant flexibility. As designed, the circuit would isolate the valves with two high drywell pressure signals, two reactor low level signals, or a manual initiation with a concurrent high drywell or low level. Technical Specification Table 3.3.2-1.1.h, however, indicates group 6A isolation valves close with a manual initiation signal with no reference to concurrent high drywell pressure or low level signals. Technical Specification Table 3.6.4-1 includes the affected valves in group 6A. Therefore, a discrepancy existed between Technical Specifications and circuit design for these valves.

This problem was discovered during an engineering review of primary and secondary containment isolation valves. No other discrepancies were found. A design change was implemented which altered the logic such that the valves would isolate with a manual initiation signal without a concurrent high drywell pressure or reactor low level signal. Surveillance procedures, which test the logic of the affected valves, were changed to reflect the new circuit.

The FSAR does not rely on manual initiation of containment and drywell isolation to mitigate transients. Since the FSAR does not require employment of manual initiation, the circuit deficiency had no safety significance.

The isolation function of these valves was not required to be operable when the problem was discovered; however, it was required when the plant had previously been in operational conditions 2 and 3. Therefore, this is reported as a condition prohibited by Technical Specifications. This is a final report.



# MISSISSIPPI POWER & LIGHT COMPANY

*Helping Build Mississippi*

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

May 17, 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  
Lack of Manual Isolation for Ten  
Valves  
LER 84-019-0  
AECM-84/0278

Attached is Licensee Event Report (LER) 84-019-0 which is a final report.

Yours truly,

L. F. Dale  
Director, Licensing & Safety

EBS/SHH:rg  
Attachment

cc: Mr. J. B. Richard (w/a)  
Mr. R. B. McGehee (w/o)  
Mr. N. S. Reynolds (w/o)  
Mr. G. B. Taylor (w/o)

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