

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	PAGE (3) 1 OF 0 3
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TITLE (4)

Reactor Scram on High Water Level

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	03	8	5	013	0	5	03	NA		0 5 0 0 0
											0 5 0 0 0

OPERATING MODE (9) 1  POWER LEVEL (10) 0 5 7	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)									
	20.402(b)		20.405(c)	<input checked="" type="checkbox"/>	50.73(a)(2)(iv)		73.71(b)			
	20.405(a)(1)(i)		50.38(c)(1)		50.73(a)(2)(v)		73.71(c)			
	20.405(a)(1)(ii)		50.38(c)(2)		50.73(a)(2)(vii)		OTHER (Specify in Abstract below and in Text, NRC Form 366A)			
	20.405(a)(1)(iii)		50.73(a)(2)(i)		50.73(a)(2)(viii)(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)(ix)				

LICENSEE CONTACT FOR THIS LER (12)

NAME Ronald Byrd/Licensing Engineer	TELEPHONE NUMBER	
	AREA CODE 6 0 1 1	4 3 7 - 1 2 1 4 9

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	
X	S	V	I H S	C 7 7 0	Y						

SUPPLEMENTAL REPORT EXPECTED (14)

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

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

On 4/3/85, the reactor scrambled on high water level during startup testing when a failed level channel selector switch caused an incorrect level signal to be applied to the feedwater system master level controller. The signal indicated low reactor water level which created a demand for more feedwater flow. The increase in level due to increased feedwater flow was not noticed in time to prevent a high level scram signal.

The switch was replaced and precautionary steps were added to the operating instructions to preclude a recurrence of this type of event.

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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   5	—	0   1   3	—	0   0	0   2 OF 0   3

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

Description of Reportable Occurrence

On April 3, 1985 at 1755, the reactor scrambled on high water level when a failed switch caused an incorrect level signal to be applied to the feedwater system master level controller from the Feedwater Control (FWC) System.

Initial Condition

The reactor was at 57 percent thermal power with a water level of +33 inches. The generator electrical output was 653 MW. Reactor water level channel A was selected as the input for the feedwater master level controller. The FWC System was in three element control.

Status of Redundant or Backup Systems

All ECCS systems were operable.

Nature of Occurrence

The feedwater controller input was transferred to reactor level channel B from channel A for a startup test. After the transfer, the level recorder began to show a decreasing trend in reactor water level. Operators verified that the feedwater system was responding properly to the demand for increased flow. Approximately 90 seconds later, the reactor operator observed all three level indicators at approximately +48 inches while the level recorder was showing approximately +29 inches. The operator was immediately directed by the Shift Supervisor to return to channel "A" level control. Although this was done, a reactor scram, feedwater pump trip, and turbine trip followed due to a high reactor water level.

The channel B signal had indicated low reactor water which created a demand for more feedwater flow. The increase in reactor level was not noticed in time to prevent a high level scram signal.

Immediate Corrective Actions

With the level decreasing due to loss of feedwater flow the Reactor Core Isolation Cooling System was started to maintain level. The level decreased to -30 inches before a feedwater pump was recovered and vessel level stabilized to normal.

Apparent Cause

Contacts on the level channel select switch had failed to make complete contact resulting in an erroneous low level signal to the feedwater control system, and the reactor water level recorder.

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Grand Gulf Nuclear Station - Unit 1	0   5   0   0   0	8   5	0   1   3	0   0	0   3	OF	0   3

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

Operators did not notice the difference between the water level indicators and the level recorder until approximately 90 seconds into the event. Operator actions were not sufficient to prevent the high level scram from occurring.

#### Supplemental Corrective Action

The faulty switch, a Cutler Hammer Type E30AD, was replaced. The Feedwater System Operating Instruction has been revised to instruct operators to place the controller in manual prior to switching the level channel selector and to compare the readings of the level indicators with that of the recorder prior to transferring the controller back to automatic.

#### Safety Assessment

There was no impact on public health and safety as a result of this event. Reactor water level was restored and stabilized without reliance on ECCS systems. Plant restart commenced at 0037 on April 4, 1985.



# MISSISSIPPI POWER & LIGHT COMPANY

*Helping Build Mississippi*

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

May 3, 1985

NUCLEAR LICENSING & SAFETY 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-29  
File: 0260/L-835.0  
Reactor Scram on High Water  
Level  
LER 85-013-0  
AECM-85/0136

Attached is Licensee Event Report (LER) 85-013-0 which is a final report.

Yours truly,

L. F. Dale  
Director

EBS/SHH:rw  
Attachment

cc: Mr. J. B. Richard (w/a)  
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