

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Grand Gulf Nuclear Station - Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 4 1 1 6	PAGE(S) 1 OF 0 2
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TITLE (4)  
Reactor Scram Due to Low 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)
1	0	14	8	4	8	4	0	4	5	0	0
									NA		0
											5
											0
											0
											0
											0

OPERATING MODE (9) 1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)										
POWER LEVEL (10) 0 1 1 9	20.402(b)			20.406(c)			<input checked="" type="checkbox"/> 50.73(a)(2)(iv)			73.71(b)	
	20.406(a)(1)(i)			50.76(c)(1)			50.73(a)(2)(v)			73.71(c)	
	20.406(a)(1)(ii)			50.38(c)(2)			50.73(a)(2)(vii)			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)				
	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 Ronald Byrd/Licensing Engineer							TELEPHONE NUMBER		
							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 NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	

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)

Adverse weather conditions caused voltage transients on the 500KV incoming line resulting in a plant scram and multiple equipment trips.

When instrument and service air compressors tripped, air supply was lost to the plant. The loss of air caused the isolation of the Condensate System, causing a loss of feedwater to the reactor. When low water level was reached a scram occurred. The water level was restored by RCIC.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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   4   5	--   0   0	0   2	OF 0   2

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

On October 14, 1984, at approximately 1700 hours, with the plant operating at 19% thermal power and the turbine rotating at 400 rpm, adverse weather conditions caused voltage transients on the 500KV incoming line resulting in a plant scram and multiple equipment trips.

The voltage dropped below the trip setpoint of ESF 21 feeder breaker 152-1705 causing bus 17 AC to de-energize. The HPCS diesel auto started and re-energized bus 17 AC within approximately 10 seconds.

The drywell chillers tripped but were restarted within 1.5 minutes, ensuring the high drywell pressure setpoint would not be reached.

RWCU isolated, but had no effect on plant safety.

Instrument and service air compressors tripped resulting in the loss of air supply to the plant. Within 1.5 minutes after the trip both service air compressors were restarted. Within 2.6 minutes of the trip, an instrument air compressor was restarted.

With the loss of air to the plant, air pressure decreased causing an isolation of the condensate precoat filters. The precoat filter bypass valve failed to open or was slow in opening which caused the condensate boosters, the condensate and the feedwater pumps to trip on low suction or low flow. Therefore, a total loss of feedwater occurred.

The reactor water level dropped to the scram setpoint. RCIC was then used to return the level to normal.

Research into the problem revealed that the precoat bypass valve is only controlled by differential pressure while the precoat valves receive a close signal on loss of air. Thus the bypass valves may not immediately open when the precoat filter valves close. A design change is being initiated to correct this problem and preclude recurrence of a similar event.



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

84 NOV 16 November 13, 1984  
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NUCLEAR LICENSING & SAFETY DEPARTMENT

U.S. Nuclear Regulatory Commission  
Region II  
101 Marietta St., N.W., Suite 2900  
Atlanta, Georgia 30323

Attention: Mr. J. P. O'Reilly, Regional Administrator

Dear Mr. O'Reilly:

SUBJECT: Grand Gulf Nuclear Station  
Unit 1  
Docket No. 50-416  
License No. NPF-29  
File: 0260/L-835.0  
Reactor Scram Due to Low Water  
Level  
LER 84-045-0  
AECM-84/0511

Attached is Licensee Event Report (LER) 84-045-0 which is a final report.

Yours truly,

*for*  
L. F. Dale  
Director

EBS/SHH:vog  
Attachment

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

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

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