

NRC Form 386
(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 3
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TITLE (4)

Scram Due to Loss of Feedwater

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	2	1	3	8	5	8	5	0	0	0	8	0	0	0	3	1	8	8	5	0	5	0	0	0

OPERATING MODE (9) 1 POWER LEVEL (10) 0 1 6	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)	X	60.73(a)(2)(iv)	73.71(b)					
	20.405(a)(1)(i)	50.36(c)(1)		60.73(a)(2)(v)	73.71(c)					
	20.405(a)(1)(ii)	50.36(c)(2)		60.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)					
	20.405(a)(1)(iii)	50.73(a)(2)(i)		60.73(a)(2)(viii)(A)						
	20.405(a)(1)(iv)	50.73(a)(2)(ii)		60.73(a)(2)(vii)(B)						
	20.405(a)(1)(v)	50.73(a)(2)(iii)		60.73(a)(2)(x)						

LICENSEE CONTACT FOR THIS LER (12)

NAME Angela H. Horton/Licensing Engineer	TELEPHONE NUMBER AREA CODE 6 1 0 1 1 4 3 7 1 - 2 1 1 4 9
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRPDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRPDS

SUPPLEMENTAL REPORT EXPECTED (14)

<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH DAY YEAR
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ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

Air was being vented from the Turbine Building Cooling Water System (TBCW) when the Unit 1 Instrument Air Compressor tripped due to low cooling water pressure. The Unit 2 Instrument Air Compressor was inoperable at the time. Both trains of Service Air were put into service. The condensate precoat filters isolated on low air pressure in the Turbine Building air headers due to air usage in the system. This resulted in the trip of the operating condensate, condensate booster, and reactor feed pumps. The reactor scrambled on low reactor water level.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 2150-0104
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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 0 8	- 0 0	0 3	OF	0 3

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

Immediate Corrective Actions Taken

The main turbine was tripped manually. The applicable off-normal event procedures were carried out as well as the Level Control Emergency Procedure. The reactor water level was raised using RCIC. The condensate and feedwater systems were returned to operation to continue restoration of the water level to +30 inches. The inboard MSIVs were closed to reduce cooldown rate.

Apparent Cause

The instrument air receiver pressure gauge was monitored from the Control Room and was never observed to go below 92 psig, however receiver pressure is not indicative of distribution header pressure. The air usage at the time pulled the Turbine Building header pressure down low enough to isolate the precoat filters. The slow response of the bypass valve on a loss of air pressure has been previously discussed in LER 84-045.

Supplemental Corrective Action

Design enhancements are presently under consideration to improve the response of the precoat filter system and bypass valve. Guidance is also being developed to specify the operational parameters of the condensate precoat filters.

Safety Assessment

All safety systems performed as designed.

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Grand Gulf Nuclear Station - Unit 1	0 5 0 0 0 4 1 6	8 5	- 0 0 8	- 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 February 13, 1985 at 1703, a loss of feedwater resulted in a Level 3 (+11.4 inches) low reactor water level scram.

Initial Conditions

The plant was operating at 16% power and preparations were in progress to synchronize the generator to the grid. The condensate/feedwater system was operating with condensate pumps "A" and "B", condensate booster pump "A", and reactor feed pump "B" in service through the Precoat Cleanup System with no bypass. The Unit 2 Instrument Air Compressor was tagged out for maintenance. The Unit 1 Instrument Air Compressor and Service Air Compressor A were operating to maintain system pressure.

Status of Redundant or Backup Systems

Not applicable.

Nature of Occurrence

Operators were venting the Turbine Building Cooling Water (TBCW) System because a significant amount of air was in the system. The Shift Supervisor suspected air inleakage from Service Air Compressor "A". Service Air Compressor "A" was shut down and the "B" compressor was placed in service.

The Unit 1 Instrument Air Compressor tripped at approximately 1700 on low cooling water (TBCW) pressure caused by the venting of the TBCW system. The Service Air System was isolated to the Auxiliary Building to limit air use. Service Air Compressor "A" was restarted to try to maintain Instrument Air System pressure. The Service Air System is automatically connected to the Instrument Air System to maintain instrument air pressure in the event the instrument air compressors are unable to do so. Approximately 3 minutes after the Instrument Air Compressor tripped, the condensate precoat filters isolated due to low air pressure in the Turbine Building air header which resulted in isolating condensate flow. The precoat filter bypass valve did not open fast enough to prevent a trip of all operating condensate pumps, the condensate booster pump, and subsequently, the reactor feed pump.

RCIC was manually initiated when vessel level reached +20 inches. The reactor water level decreased to the Level 3 (+11.4 inches) scram setpoint and continued to decreased until it stabilized at -25 inches.



MISSISSIPPI POWER & LIGHT COMPANY

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March 18, 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
Scram Due to Loss of
Feedwater
LER 85-008-0
AECM-85/0082

Attached is Licensee Event Report (LER) 85-008-0 which is a final report.

Yours truly,

L. F. Dale

for L. F. Dale
Director

EBS/SHH:rg
Attachment

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