

FACILITY NAME (1): Grand Gulf Nuclear Station - Unit 1 DOCKET NUMBER (2): 0500041161 PAGE (3): 1 OF 02

TITLE (4): RPS Bus Breaker Trip Resulting in Loss of SDC

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)		
MONTH	DAY	YEAR	YEA	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES		DOCKET NUMBER(S)
01	07	84	84	002	02	05	30	84	NA		050000

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 8: (Check one or more of the following) (11)

OPERATING MODE (9): 4	20.402(b)	20.406(e)	80.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10): 01010	20.406(a)(1)(i)	80.38(a)(1)	80.73(a)(2)(v)	73.71(a)
	20.406(a)(1)(ii)	80.38(a)(2)	80.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 365A)
	20.406(a)(1)(iii)	80.73(a)(2)(i)	80.73(a)(2)(viii)(A)	
	20.406(a)(1)(iv)	80.73(a)(2)(ii)	80.73(a)(2)(viii)(B)	
	20.406(a)(1)(v)	80.73(a)(2)(iii)	80.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12): NAME: Ronald W. Byrd/Licensing Engineer TELEPHONE NUMBER: 601 437-2149

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

CAUSE	SYSTEM	COMPONENT	MANUFAC TURER	REPORTABLE TO NRRDS	CAUSE	SYSTEM	COMPONENT	MANUFAC TURER	REPORTABLE TO NRRDS
X	EID	B K R	G O S O	N					

SUPPLEMENTAL REPORT EXPECTED (14): YES (if yes, complete EXPECTED SUBMISSION DATE): X NO EXPECTED SUBMISSION DATE (15):

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

Since January 7, 1984, several instances of RPS bus breaker trips have resulted in a loss of Shutdown Cooling. Dates of occurrences were January 7, 9, 11, 14, 19, and 20, and February 23 and 24.

Redundant trains of the shutdown cooling mode of RHR are supplied through a common inlet containing two motor-operated valves in series. The isolation logic for these valves receive power from the RPS bus. Loss of either RPS bus causes one or the other containment isolation valves to close, causing a total loss of shutdown cooling.

A trip on January 19 was due to a circuit board failure of an Electrical Protection Assembly (EPA). The remaining trips are attributed to voltage transients on the RPS buses. The time delay settings for the EPA breakers were increased to prevent trips on short transients. An increased tolerance range for the undervoltage EPA trip settings is being considered.

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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 0 2	-	0 2	0 2 G 0 2

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

Since January 7, 1984, several instances of RPS bus breaker trips have resulted in a loss of Shutdown Cooling. Dates of occurrences were January 7, 9, 11, 14, 19, and 20, and February 23 and 24. The reactor was in Cold Shutdown during each event. In each case operators restored Shutdown Cooling within one hour in accordance with Technical Specification 3.4.9.2. The trips occurred on both bus A and B with power supplied by either the motor generator set or the alternate supply.

A trip on January 14 also resulted in a full scram signal, an isolation of the Reactor Water Cleanup System, a Division 2 Auxiliary Building isolation, an initiation of Standby Gas Treatment B, and the initiation of Control Room Fresh Air Unit B in the isolated mode. This was due to a planned Division 1 electrical outage concurrent with the trip of the RPS B bus.

A trip on January 19 was attributed to a circuit board failure of an Electrical Protection Assembly (EPA). The trip occurred as a half scram signal was reset. The faulty EPA logic circuit card was replaced.

The remaining trips have been attributed to voltage transients on the buses. To preclude recurrence of these events, GGNS has completed three changes. They are as follows:

1. The time delay settings for the EPA trip logic circuitry has been increased from 0.1 seconds to 3.5 seconds. This is in accordance with recently issued Revision 3 of General Electric's RPS Specification 22A3771AE.
2. The output setting of the power supplies has been increased from 120V to 125V.
3. The motor generator overvoltage relay setting has been increased to 140V to prevent trips while transferring power sources at the increased output.

GGNS will also request a Technical Specification change to increase the voltage setpoint tolerances for EPA breaker trips. This is a final report.



MISSISSIPPI POWER & LIGHT COMPANY

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P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

May 30, 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
RPS Bus Breaker Trips Resulting in
Loss of SDC
LER 84-002-2
AECM-84/0292

Attached is Licensee Event Report (LER) 84-002-2 which is a final report.

Yours truly,

L. F. Dale
Director of Nuclear Licensing & Safety

EBS/SHH:rg
Attachment

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

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