

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 1 6	PAGE (3) 1 OF 0 3
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TITLE (4) Inoperable Diesel Generators

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 7	1 7	8 5	8 5	0 2	8	0 0	0 8	0 9	N/A		0 5 0 0 0
											0 5 0 0 0

OPERATING MODE (9) 1 POWER LEVEL (10) 0 1 8	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)			50.73(a)(2)(iv)			73.71(b)		
	20.405(a)(1)(i)			50.36(c)(1)			50.73(a)(2)(v)			73.71(c)		
	20.405(a)(1)(ii)			50.36(c)(2)			50.73(a)(2)(vii)			X OTHER (Specify in Abstract below and in Text, NRC Form 366A)		
	20.405(a)(1)(iii)			X 50.73(a)(2)(i)			50.73(a)(2)(viii)(A)			Special Report		
	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 Lonnie F. Daughtery/Compliance Superintendent								TELEPHONE NUMBER	
								AREA CODE 6 0 1	
								4 3 7 - 1 2 3 4 4	

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)										
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	

SUPPLEMENTAL REPORT EXPECTED (14)						EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)						X NO				

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

On July 17, 1985, at 1930 during performance of a diesel generator 11 surveillance to verify operability, the diesel generator tripped. At the time of the event the cause was believed to be a clogged fuel filter, therefore, diesel generator 11 was declared inoperable. Diesel generator 13 had previously been declared inoperable due to a failed generator bearing. The plant entered Technical Specification 3.0.3 and a plant shutdown was initiated. Investigation revealed a lack of generator excitation due to a failed component. The component was replaced and the diesel generator was returned to service prior to a required shutdown. This is also a Special Report as required by Technical Specification 4.8.1.1.3 and pursuant to Technical Specification 6.9.2.

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NRC Form 365A
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

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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 2 8	— 0 0	0 2	OF	0 3

TEXT (If more space is required, use additional NRC Form 365A's) (17)

Description of Reportable Occurrence

On July 17, 1985, Technical Specification 3.0.3 was entered as both diesel generators 11 and 13 were inoperable. At 1930, during a surveillance on diesel generator 11, the diesel generator tripped. Diesel generator 13 had previously been declared inoperable and was being repaired because of a failed generator bearing. This is also a Special Report as required by Technical Specification 4.8.1.1.3 and pursuant to Technical Specification 6.9.2.

Initial Conditions

The plant was operating at 81% power.

Status of Redundant Systems

Diesel generator 12 was verified operable.

Nature of Occurrence

At the time of the event, a clogged fuel filter was suspected of preventing the diesel generator from obtaining rated speed. Further investigation revealed a lack of generator excitation as the cause.

Immediate Corrective Actions

With both diesel generator 11 and diesel generator 13 inoperable, Technical Specification 3.0.3 was entered and a plant shutdown was initiated. It took approximately 7.5 hours to diagnose the problem, place the installed spare SCR bridge No. 2 into service, run the operability test, and return diesel generator 11 to an operable status. This was considered an invalid failure, therefore, the surveillance test interval remains at 31 days in accordance with the test schedule of Regulatory Position C.2.d of Regulatory Guide 1.108.

Apparent Cause

The cause of this problem was a shorted power rectifier diode on SCR bridge No. 1. This random failure in the 3-phase rectifier bank prevented excitation from being applied to the generator. The electro-hydraulic governor actuator signaled the fuel racks to retract and shut off fuel to the diesel. This is the normal system response to a lack of excitation. The failed component was an International Rectifier Power Diode; IRC 1N3740R, Transamerica LeVal Part No. 1454X0114.

Supplemental Corrective Action

Troubleshooting revealed Diode No. 6 in SCR bridge No. 1 had shorted out. This was a random failure. SCR bridge No. 1 has been repaired and returned to service.

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						0 3 OF 0 3

TEXT (If more space is required, use additional NRC Form 365A's) (17)

Safety Assessment

This incident had no effect on the health and safety of the public.



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

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

August 9, 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
Inoperable Diesel Generators
LER 85-028-0
AECM-85/0243

Attached is Licensee Event Report (LER) 85-028-0 which is a final report.

Yours truly,

L. F. Dale
Director

EBS/SHH:dmm
Attachment

cc: Mr. J. B. Richard (w/a)
Mr. O. D. Kingsley, Jr. (w/a)
Mr. R. B. McGehee (w/a)
Mr. N. S. Reynolds (w/a)
Mr. H. L. Thomas (w/o)
Mr. R. C. Butcher (w/a)

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