

NRC Form 388
(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 Due to Main Steam Line Isolation

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	0 7	8 5	8 5	0 1 6	0 0	0 5	0 7	8 5	NA	0 5 0 0 0	
										0 5 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 7 5	20.402(b)	20.405(c)	<input checked="" type="checkbox"/>	50.73(a)(2)(iv)	73.71(b)						
	20.405(a)(1)(i)	50.36(e)(1)		50.73(a)(2)(v)	73.71(c)						
	20.405(a)(1)(ii)	50.36(e)(2)		50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 365A)						
	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(n)(2)(x)							

LICENSEE CONTACT FOR THIS LER (12)

NAME Angela H. Horton/Licensing Engineer	TELEPHONE NUMBER 6 0 1 4 3 7 - 2 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 NPDOS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS
X	JIM	IPT	R131619	No					

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 April 7, 1985, the reactor scrambled from 75% power due to a full main steam line isolation. A surveillance calibration which produces a main steam line (MSL) isolation signal was being conducted on Division 1 main steam line flow. A faulty pressure transmitter in Division 2 produced an erroneous MSL isolation signal. The two signals together result in a full MSL isolation signal which produced the isolation and subsequent scram.

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NRC Form 368A
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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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 5	-	0 1 6	-	0 0 0 2	OF 0 3

TEXT (If more space is required, use additional NRC Form 368A's) (17)

Description of Reportable Occurrence

On April 7, 1985 at 0957, the reactor automatically scrambled in response to a Main Steam Line isolation signal.

Initial Conditions

The plant was operating at 75% power.

Status of Redundant or Backup Systems

Not Applicable.

Nature of Occurrence

A maintenance technician was performing the "Main Steam Line (MSL) High Flow Calibration" on the Division 1 trip system. The surveillance calibration procedure produces one of two signals required for an MSL isolation. The technician verified, as specified at the start of the calibration procedure, that no isolation signals were present on Division 1 or Division 2. He then left the area to ask his supervisor a question about the procedure. He returned approximately ten minutes later and continued the calibration procedure through the step which produces an isolation signal. A spurious isolation signal on Division 2 occurred during the technician's absence which the operators could have thought to be associated with the calibration procedure in progress. The two isolation signals together resulted in MSIV closures causing the reactor to scram.

The Turbine Stop and Control Valves tripped causing the transfer of the Reactor Recirculation pumps to slow speed. Reactor pressure increased to approximately 1105 psig and two Safety Relief Valves (SRV's) lifted and reseated. One of the same two SRV's cycled open and closed three additional times as the low-low setpoint logic was actuated. RCIC was manually initiated to control reactor pressure and was used for reactor level control as required. Suppression Pool Cooling mode of RHR "A" was initiated. All safety systems performed as designed during scram recovery.

Immediate Corrective Actions Taken

The applicable Off-Normal Event Procedures and the Scram Recovery procedure were performed.

Apparent Cause

In order for the MSIVs to shut, an isolation signal had to be present on Division 2. The Shift Superintendent had observed an "MSL Low Pressure" alarm annunciate earlier that morning which had cleared immediately.

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(9-83)

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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TEXT (If more space is required, use additional NRC Form 385A's) (17)

Both MSL low pressure transmitters on Division 2 were examined, and transmitter N076D was found to have water on the termination side. The N076D transmitter terminals were corroded causing a poor connection. The transmitter fails low which explains the false "MSL Low Pressure" signal. The cause of the water accumulation was not determined.

The Main Steam Line Low Pressure functional test had last been successfully performed on February 24, 1985.

Supplemental Corrective Action

Transmitter N076D was cleaned, reterminated, calibrated, and placed back in service. Additionally, the two Division 1 MSL pressure transmitters and the sixteen Division 1 and 2 MSL flow transmitters were inspected for the presence of water and none was found.

Safety Assessment

All safety systems performed as required.



MISSISSIPPI POWER & LIGHT COMPANY

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

May 7, 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 Due to Main
Steam Line Isolation
LER 85-016-0
AECM-85/0153

Attached is Licensee Event Report (LER) 85-016-0 which is a final report.

Yours truly,

L. F. Dale
Director

EBS/SHH:vog
Attachment

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