NRC FORM 366
(7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

CONTROL BLOCK: | | | | | | | (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1	LICENSEE CODE	LICENSE NUMBER	LICENSE TYPE	CAT
	M S G G S 1 (2)	0 0 - 0 0 0 0 0 - 0 0 (3)	4 1 1 1 1 (4)	(5)

CON'T 0 1	REPORT SOURCE	DOCKET NUMBER	EVENT DATE	REPORT DATE
	L (6)	0 5 0 0 0 4 1 6 (7)	1 1 2 2 8 3 (8)	1 2 2 2 8 3 (9)

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 On November 22, 1983 while in Cold Shutdown, maintenance technicians
0 3 filling a reactor vessel level transmitter reference leg caused a spike
0 4 that resulted in Div. I automatic actuations including an injection by
0 5 the Low Pressure Core Spray pump and an isolation of Shutdown Cooling.
0 6 The injection lasted for approximately 1 minute and 40 seconds. Shutdown
0 7 Cooling was restored within one hour as required by T.S.3.4.9.2. This is
0 8 submitted as an interim report pursuant to T.S.6.9.1.13.b.

0 9	SYSTEM CODE	CAUSE CODE	CAUSE SUBCODE	COMPONENT CODE	COMP. SUBCODE	VALVE SUBCODE
	I B (11)	A (12)	C (13)	I N S T R U (14)	T (15)	Z (16)

(17) LER/RO REPORT NUMBER

EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
8 3	—	1 8 7	/	0 3	L	—	0

ACTION TAKEN	FUTURE ACTION	EFFECT ON PLANT	SHUTDOWN METHOD	HOURS (22)	ATTACHMENT SUBMITTED	NPRD-4 FORM SUB.	PRIME COMP. SUPPLIER	COMPONENT MANUFACTURER
H (18)	G (19)	Z (20)	Z (21)	0 0 0 0	Y (23)	N (24)	N (25)	R 3 6 9 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 The cause was personnel error. The Reference Leg Check Procedure was not
1 1 being used. The procedure is being revised to provide more guidance. The
1 2 responsible supervisor is being reprimanded and the technicians are
1 3 being counseled. I&C technicians will be instructed to use the procedure
1 4 when filling reference legs associated with vessel instrumentation.

1 5	FACILITY STATUS	% POWER	OTHER STATUS (30)	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION (32)
	G (28)	0 0 0 (29)	NA	A (31)	Alarms

1 6	ACTIVITY RELEASED	CONTENT OF RELEASE	AMOUNT OF ACTIVITY (35)	LOCATION OF RELEASE (36)
	Z (33)	Z (34)	NA	NA

PERSONNEL EXPOSURES

1 7	NUMBER	TYPE	DESCRIPTION (39)
	0 0 0 (37)	Z (38)	NA

PERSONNEL INJURIES

1 8	NUMBER	DESCRIPTION (41)
	0 0 0 (40)	NA

LOSS OF OR DAMAGE TO FACILITY (43)

1 9	TYPE	DESCRIPTION
	Z (42)	NA

8401030194 831222
PDR ADOCK 05000416
S PDR

PUBLICITY

2 0	ISSUED	DESCRIPTION (45)
	N (44)	NA

NRC USE ONLY

IE22

NAME OF PREPARER R.W. Byrd PHONE

GPO 917-926

SUPPLEMENTARY INFORMATION TO
LER 83-187/03 L-0

Mississippi Power & Light Company
Grand Gulf Nuclear Station - Unit 1
Docket No. 50-416

Technical Specification Involved: 3.4.9.2
Reported Under Technical Specification: 6.9.1.13.b

Event Narrative:

At 2324 hours on November 22, 1983, while in Cold Shutdown, maintenance technicians filling a reference leg caused a spike on reactor vessel level transmitters resulting in Division I automatic actuations including an injection by the Low Pressure Core Spray pump. The LPCS injection lasted for 1 minute 40 seconds and raised the vessel level from 58 inches to 104 inches on the Upset Range level recorder. Reactor coolant temperature was approximately 121°F.

Other automatic actuations were:

- Division I Diesel Generator started
- Division I LSS initiated for a LOCA
- Auxiliary Building Outboard isolations
- Standby Gas Treatment started
- Control Room Fresh Air Unit started
- RWCU isolated
- Shutdown Cooling Loop "A" isolated
- LPCI "A" pump attempted to start twice but tripped each time due to its suppression pool suction valve being closed for Shutdown Cooling operation.

An abnormality on RPS bus "A" was noted during the event. Computer printouts indicate that RPS bus "A" experienced some voltage transients. Power supplies for APRMs A, C, E, and G tripped off, apparently on a high voltage output at the same time the manual scram relay computer point indicated a trip at 2327:47 hours. The manual scram relay trip reset 0.5 seconds later and tripped again at 2327:54 hours. It reset approximately 7 seconds later. These are indications of RPS bus "A" voltage transients. Operators verfied that RPS bus "A" was energized by the motor generator set. An investigation is in progress to determine the cause.

The cause of the ESF actuations was due to personnel error in filling the reference legs. The Reference Leg Check Procedure (07-S-13-23) was not used in this incident. Technicians were working under a work authorization to investigate and correct a mismatch in the narrow-range level indicators. Transmitter C34-LT-N004A was found to have a milliamp output higher than expected. Historically, this has indicated that the reference leg needed filling, therefore, the technicians were instructed by their supervisor to fill the reference leg. When the fill supply valve was opened, a pressure spike was placed on several level transmitters sharing the common reference leg resulting in a reactor half scram signal and ESF initiations.

The generically written Reference Leg Check procedure is being revised to provide guidance in filling reference legs associated with vessel instrumentation. The Maintenance Assistant Plant Manager will issue a memo to all I&C technicians emphasizing the importance of using the procedure when filling reference legs associated with vessel instrumentation. The maintenance supervisor is being reprimanded and the technicians involved counseled. Corrective action is expected to be completed by January 31, 1984.

This is submitted as an interim report pursuant to Technical Specification 6.9.1.13.b. An update report of the investigation of the RPS voltage transients is expected to be submitted by February 29, 1984.

MISSISSIPPI POWER & LIGHT COMPANY
Helping Build Mississippi
P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

83 DEC 28 A8:45

December 22, 1983

NUCLEAR PRODUCTION DEPARTMENT

U. S. Nuclear Regulatory Commission
Region II
101 Marietta St., N.W., Suite 2900
Atlanta, Georgia 30303

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-13
File 0260/L-835.0
Spike on Reactor Vessel Level Transmitters Results in Division I Automatic Actuations
LER 83-187/03 L-0
AECM-83/0799

On November 22, 1983 at 2324 hours, while in Cold Shutdown, maintenance technicians filling a reference leg caused a spike on reactor vessel level transmitters resulting in several Division I automatic actuations including an injection by the Low Pressure Core Spray pump and an isolation of Shutdown Cooling. Shutdown Cooling was restored within one hour as required by Technical Specification 3.4.9.2. This is reported pursuant to Technical Specification 6.9.1.13.b. Attached is interim LER 83-187/03 L-0 with Supplementary Information.

Yours truly,

S A Hobbs

for L. F. Dale
Manager of Nuclear Services

EBS/SHH:sap
Attachment

cc: Mr. J. B. Richard (w/a)
Mr. R. B. McGehee (w/o)
Mr. T. B. Conner (w/o)
Mr. G. B. Taylor (w/o)

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