

LICENSEE EVENT REPORT

Attachment to AECM-83/0459

Page 1 of 2

CONTROL BLOCK:

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58

LICENSEE CODE LICENSE NUMBER LICENSE TYPE CAT

CON'T

REPORT SOURCE: 01 L6 05000416707188380816839
DOCKET NUMBER: 60 81 66 69
EVENT DATE: 74 75
REPORT DATE: 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

On July 18, 1983, an unanticipated activation of the Division II LOCA logic occurred. All auto actions expected to occur did in fact occur, except for the auto start of RHR "C" pump. The event had no affect on the health and safety of the public and did not constitute a threat to plant safety. This is reported pursuant to T.S.6.9.1.13.b. The event was also reported pursuant to 10 CFR 50.72.

SYSTEM CODE 0 9		CAUSE CODE S F (11)		CAUSE SUBCODE E (12)		COMPONENT CODE I N S T R U (14)		COMP. SUBCODE P (15)		VALVE SUBCODE Z (16)	
7 8		9 10		11 12		13 18		19 20		21 22	
(17) LER RO REPORT NUMBER		EVENT YEAR 8 3		SEQUENTIAL REPORT NO. 0 8 4		OCCURRENCE CODE / 9 3		REPORT TYPE L		REVISION NO. 0	
23 24		25 26		27 28		29 30		31 32		33 34	
ACTION TAKEN C (18)		FUTURE ACTION Z (19)		EFFECT ON PLANT Z (20)		SHUTDOWN METHOD Z (21)		HOURS 0 0 0 (22)		ATTACHMENT SUBMITTED Y (23)	
35 36		37 38		39 40		41 42		43 44		45 46	
NPRD-4 FORM SUB N (24)		PRIME COMP. SUPPLIER N (25)		COMPONENT MANUFACTURER T 2 4 8 (26)							
47 48		49 50		51 52		53 54		55 56		57 58	

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 The cause of the LOCA signal was a malfunctioning inverter. The failure
1 1 of the RHR "C" pump to start is believed to stem from the LSS (Load
1 2 Shed Sequence) panel although this has not been confirmed (See LER 83-
1 3 083). The investigation is continuing and an update report should be
1 4 expected by September 15, 1983.

7 8 9 80

FACILITY STATUS (1) 5 (8) (28)

% POWER (0) (0) (0) (29) OTHER STATUS (30) NA

METHOD OF DISCOVERY (A) (31) DISCOVERY DESCRIPTION (32) Operator Observation

2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

ACTIVITY CONTENT
RELEASED OF RELEASE

1 6 2 33 7 34 NA

AMOUNT OF ACTIVITY (35)

LOCATION OF RELEASE (36)

PERSONNEL EXPOSURES									
NUMBER			TYPE	DESCRIPTION					
1	7	0	0	0	37	Z	38	NA	39

PERSONNEL INJURIES		DESCRIPTION	
NUMBER			
0	0	0	40
		NA	

8 9		11 12		
LOSS OF OR DAMAGE TO FACILITY				(43)
TYPE		DESCRIPTION		
1	9	2	42	NA

7 8 9 10 8308260198 830916
PUBICITY PDR ADOCK 05000416 NRC USE ONLY
ISSUED (44) DESCRIPTION (45) S PDR
2 0 68 69 80

NAME OF PREPARER Ron Byrd/M. V. Rohrer

PHONE _____

SUPPLEMENTARY INFORMATION TO
LER 83-084/03 L-0

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

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

Event Narrative:

On July 18, 1983, at 2120 hours an unanticipated activation of the Division II LOCA Logic occurred. All "auto" actions expected to occur did occur except for the auto start of RHR "C" pump. The RHR "B" pump was in shutdown cooling mode at the time of the event and was unavailable for auto initiation. The LOCA signal was produced by a malfunctioning inverter, JYK-701.

Earlier, on July 14, 1983, a problem had been discovered with 24 Vdc power supply JYK-704 which is supplied 120 Vac by inverter JYK-701. All Division II ECCS subsystems were declared inoperable at that time. The problem was explained as low voltage to the Division II ECCS trip units. A Limiting Condition for Operation was entered pursuant to Technical Specification 3.5.2 until testing on Division I ECCS was completed one (1) hour later.

The sequence of events was explained as follows: The output voltage from inverter JYK-701 was oscillating similar to a sinusoidal wave. At 2120 hours on July 18, 1983, the negative peak of the voltage dipped to below the normal input rating of power supply JYK-704, this powered down instrument nest Z4 driving all instruments downscale which includes trip units B21-N691B and F wide range reactor level trip indicating units (Low Low Level 1), and in turn powering down relay K7 and K8 which energized to trip (K7, K8, and the trip indicating unit are all powered from power supply JYK-704). Following this the output from inverter JYK-701 was on the rise and rose above the normal input for JYK-704 which in turn sent power to B21-N691B, F, and relays K7 and K8. However, since the response time of the trip unit is slower than that of the relays, K7 and K8 energized to seal in a LOCA signal before trip units B21-N691B or F could rise above their trip setpoints. Investigation is still continuing to determine why the RHR "C" pump did not start although at this time it is believed that a problem exists with the XK18 relay in the LSS panel.



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

83 AUG 23 09:48
August 16, 1983

NUCLEAR PRODUCTION DEPARTMENT

Office of Inspection & Enforcement
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
Unanticipated Activation of
the Division II LOCA Logic
LER 83-084/03 L-0
AECM-83/0459

On July 18, 1983, an unanticipated activation of the Division II LOCA Logic occurred. All auto actions expected to occur did occur except for the auto start of RHR "C" pump. This is reported pursuant to Technical Specification 6.9.1.13.b. The event was also reported pursuant to 10 CFR 50.72. Attached is LER 83-084/03 L-0 with Supplementary Information.

Yours truly,

Sam H. 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)

Mr. Richard C. DeYoung, Director (w/a)
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