NRC FORM 366 (7-77) Update Report - Previous Report Date 10/30/83

U. S. NUCLEAR REGULATORY COMMISSION

Attachment to AECM-84/0247

Page 1 of 2

LICENSEE EVENT REPORT

CONTROL BLOCK: (1)

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1 | M S G G S 1 (2) | 0 0 - 0 0 0 0 0 - 0 0 (3) | 4 1 1 1 1 (4) | (5)

7 8 9 LICENSEE CODE 14 15 LICENSE NUMBER 25 26 LICENSE TYPE 30 57 CAT 58

CON'T

0 1 | REPORT SOURCE L (6) | 0 5 0 0 0 4 1 6 (7) | 0 9 3 0 8 3 (8) | 0 4 3 0 8 4 (9)

7 8 60 61 DOCKET NUMBER 68 69 EVENT DATE 74 75 REPORT DATE 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 | On 9/30/83, during the 12 hour channel check of T.S.4.3.2.1-1,5.k, the

0 3 | RHR/RCIC high steam line flow isolation actuation instruments were found

0 4 | to be reading significantly different. Channel A indicated approximately

0 5 | -15 inches of water while Channel B indicated 35 inches, during no flow

0 6 | conditions. Action 27 of T.S.3.3.2 was performed as the instruments were

0 7 | considered inoperable. This event had no effect on the health and safety

0 8 | of the public and did not constitute a threat to plant safety.

7 8 9 80

0 9 | SYSTEM CODE C F (11) | CAUSE CODE B (12) | CAUSE SUBCODE A (13) | COMPONENT CODE P I P E X X (14) | COMP. SUBCODE A (15) | VALVE SUBCODE Z (16)

8 9 10 11 12 13 18 19 20

(17) LER RO REPORT NUMBER | EVENT YEAR 8 3 | — | SEQUENTIAL REPORT NO. 1 5 3 | / | OCCURRENCE CODE 0 3 | REPORT TYPE X | — | REVISION NO. 1

21 22 23 24 26 27 28 29 30 31 32

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

33 34 35 36 37 40 41 42 43 44 47

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 | Due to the arrangement of the instrument sensing lines, there was an in-

1 1 | advertant loop seal in the steam portion of the line that filled with

1 2 | water resulting in a differential pressure sensed by the transmitter.

1 3 | The A transmitter & trip unit were recalibrated to offset the error. The

1 4 | B channel was determined to be conservative and no action was taken.

7 8 9 80

1 5 | FACILITY STATUS B (28) | % POWER 0 0 1 (29) | OTHER STATUS (30) NA | METHOD OF DISCOVERY B (31) | DISCOVERY DESCRIPTION (32) 12 Hour Surveillance

7 9 10 12 13 44 45 46 80

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

7 8 9 10 11 44 46 80

PERSONNEL EXPOSURES

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

7 8 9 11 12 13 80

PERSONNEL INJURIES

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

7 8 9 11 12 80

LOSS OF OR DAMAGE TO FACILITY (43)

1 9 | TYPE Z (42) | DESCRIPTION NA

7 8 9 10 80

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PDR ADOCK 05000416
S PDR

IE22

PUBLICITY

2 0 | ISSUED N (44) | DESCRIPTION (45) A | NRC USE ONLY

7 8 9 10 68 69 80

NAME OF PREPARER Ron Byrd PHONE

GPO 917-926

Supplementary Information to
LER 83-153/03 X-1

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

Technical Specification Involved: 3.3.2
Reported Under Technical Specification: 6.9.1.13.b

Event Narrative

During performance of the 12 hour channel check of Technical Specification Table 4.3.2.1-1.5.K (RHR/RCIC Steam Line Flow-High), instruments E31N684A and E31N684B were found to be reading significantly different. Channel "A" read approximately (-) 15 inches of water and Channel "B" read approximately 35 inches, during no flow conditions. The surveillance acceptance criteria required the instruments to read within 40 inches of one another. The affected isolation valves were closed and the RHR/RCIC Steam Condensing system was declared inoperable in accordance with Action 27 of Technical Specification 3.3.2.

Engineering determined that due to the arrangement of the sensing lines for the transmitters, there was a loop seal in the steam portion of the sensing line which filled with water and because of a siphon effect, placed a differential pressure on the transmitters. This resulted in a nonconservative (-) 16 inches indication on N684A. For N684B, the effect is a conservative (+) 40.4 inch indication, which makes the indication relative to the trip setpoint more conservative than Technical Specification Table 3.3.2-2.5.K.

An identical problem was found on the RCIC High Flow Isolation trip units on September 29, 1983. However, both instruments, E31N683A and E31N683B, were reading in the conservative direction relative to the trip setpoint of Technical Specification Table 3.3.2-2.5.a. No calibration changes were made to the instruments.

Corrective action was to revise the calibration procedure for the "A" transmitter and corresponding trip unit to compensate for the sensing line installation. The "B" calibration procedure was not revised since the Channel "B" offset error is in the conservative direction. Channel "A" was recalibrated and the system restored on October 1, 1983. Additional data was collected during power ascension testing from September 26, 1983 to November 9, 1983.

Engineering determined from the data that the design problem does not affect the instruments' safety function since the errors are either conservative or have been corrected by calibration. The daily functional check was revised to provide proper comparison between instruments. No further action is planned at this time. A design change request, DCR 83/590, has been initiated to track any future enhancements. This is reported pursuant to Technical Specification 6.9.1.13.b and is submitted as a final report.

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

84 MAY 8 P1:21

April 30, 1984

NUCLEAR PRODUCTION DEPARTMENT

U.S. Nuclear Regulatory Commission
Reg. 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
Offset Error in RHR/RCIC Steam Line
Flow Instruments - Design Error
LER 83-153/03 X-1
AECM-84/0247

On September 30, 1983, during a required surveillance, two RHR/RCIC steam line flow instruments were found to be reading improperly. The RHR/RCIC Steam Condensing System was declared inoperable as required by Action 27 of Technical Specification 3.3.2. This event was reported pursuant to Technical Specification 6.9.1.13.b.

Additional corrective action to prevent event recurrence has been implemented. No further action is planned at this time. A design change request has been initiated to track any future enhancements. This is a final report. Attached is LER 83-153/03 X-1 with Supplementary Information.

Yours truly,

L. F. Dale
Manager of Nuclear Services

EBS/SHH:rg
Attachment

cc: See next page

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

Mr. Richard C. DeYoung, Director (w/a)
Office of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Document Control Desk (w/a)
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555