

## LICENSEE EVENT REPORT

Attachment to AECM-83/0408

Page 1 of 2

CONTROL BLOCK:

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

01 M S G S S 1 2 0 0 - 0 0 0 0 0 - 0 0 3 4 1 1 1 1 4 5  
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

CONT

REPORT  
SOURCE

01 L 6 0 5 0 0 0 4 1 6 7 0 6 2 3 8 3 8 0 7 1 8 8 3 9  
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

## EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 A design deficiency in the Standby Service Water System (SSW) was noted  
03 following a makeup evolution to the SSW cooling tower basins. Under  
04 specific circumstances the design of the system allows inventory to be  
05 siphoned back out of the basins following the makeup process. An LCO was  
06 entered under T.S.3.7.1.3 since the basin water level was less than 87"  
07 (Control Room instrumentation indicated approximately 86.4"). The event  
08 is reported pursuant to T.S.6.9.1.13.b.

09 SYSTEM CODE CAUSE CODE CAUSE SUBCODE COMPONENT CODE COMP SUBCODE VALVE SUBCODE  
WE 11 B 12 A 13 Z Z Z Z Z Z 14 Z 15 Z 16  
17 LER NO. REPORT NUMBER EVENT YEAR SHUTDOWN METHOD SEQUENTIAL REPORT NO. OCCURRENCE CODE REPORT TYPE REVISION NO.  
8 3 1 0 7 5 1 0 3 L 0  
ACTION TAKEN FUTURE ACTION EFFECT ON PLANT SHUTDOWN METHOD HOURS ATTACHMENT SUBMITTED NPD-4 FORM SUB. PRIME COMP. SUPPLIER COMPONENT MANUFACTURER  
X 18 Z 19 Z 20 Z 21 0 0 0 0 Y 22 N 24 Z 25 Z 9 9 9 26

## CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 The cause was a design error. Basin water level was raised to the  
11 required level within 30 minutes and the LCO was lifted. A DCR has been  
12 submitted to Nuclear Plant Engineering for a final solution. In the  
13 interim, administrative controls have been established to prevent event  
14 recurrence.

15 FACILITY STATUS % POWER OTHER STATUS 30 METHOD OF DISCOVERY DISCOVERY DESCRIPTION 32  
8 28 0 0 0 29 NA A 31 Operation of System  
16 ACTIVITY CONTENT RELEASED OF RELEASE AMOUNT OF ACTIVITY 35 LOCATION OF RELEASE 38  
Z 33 Z 34 NA NA  
17 PERSONNEL EXPOSURES NUMBER TYPE DESCRIPTION 39  
0 0 0 37 Z 38 NA  
18 PERSONNEL INJURIES NUMBER DESCRIPTION 41  
0 0 0 40 NA  
19 LOSS OF OR DAMAGE TO FACILITY TYPE DESCRIPTION 43  
Z 42 NA  
20 PUBLICATION ISSUED DESCRIPTION 45  
N 44 NA

8307260464 830718  
PDR ADOCK 05000416  
S PDR

NRC USE ONLY

NAME OF PREPARER: M. V. Rohrer

PHONE:

SUPPLEMENTARY INFORMATION TO  
LER 83-075/03 L-0

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

Technical Specification Involved: 3.7.1.3  
Reported Under Technical Specification: 6.9.1.13.b

Event Narrative:

On June 23, 1983, it was recognized that a design deficiency existed in the Standby Service Water cooling tower basin makeup lines for both basins.

The design deficiency is as follows: whenever inventory is made up to the Standby Service Water basins, via the makeup line from the Plant Service Water (PSW) System, and the PSW system is subsequently shutdown, basin inventory is siphoned back through the makeup line into the PSW supply header. The problem is only of concern on a loss of offsite power (loss of power to the pumps or during an outage when the PSW pumps are to be removed for service). The design of the piping is such that the makeup line outlet is 6 feet below the minimum required level by the Technical Specifications, and as designed cannot be placed above the water level. The level loss rate has been estimated at a maximum of approximately 80 GPM.

Corrective actions implemented or being implemented are: (1) to place a temporary administrative control for operations (close a butterfly valve upstream of the makeup control valve when the PSW system is shutdown be it either planned or unplanned) and (2) to extend a piping run back to the basin from a vent line (3/4") just downstream of the makeup control valve to break the vacuum under the above mentioned circumstances. This has been submitted as design change request 83-0316.

The temporary administrative controls are to be in effect by July 31, 1983, and the final design change is expected to be implemented before commercial operation. This is submitted as a final report.



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

July 18, 1983

JAMES P. MCGAUGHY, JR.  
VICE PRESIDENT

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  
Standby Service Water Cooling  
Tower Basin Drops Below  
Minimum Required Level  
LER 83-075/03 L-0  
AECM-83/0408

On June 23, 1983, following a makeup evolution to the Standby Service Water (SSW) cooling tower basins, a Limiting Condition for Operation was entered under Technical Specification 3.7.1.3 since the basin level dropped below the required 87 inches. Under specific circumstances the design of the system allows inventory to be siphoned back out of the basins following the makeup process. This condition is reported pursuant to Technical Specification 6.9.1.13.b. Attached is LER 83-075/03 L-0 with Supplementary Information.

Yours truly,

*L.P. McGaughy*  
for J.P. McGaughy

JPM: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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