

LICENSEE EVENT REPORT

Attachment to AECM-83/0507
Page 1 of 3

CONTROL BLOCK:

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PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION

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 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

0 1 M S E G S 1 2 0 0 - 0 0 0 0 0 - 0 0 3 4 1 1 1 1 4 57 CAT 58 5

LICENSEE CODE LICENSE NUMBER LICENSE TYPE

CON'T

0	1
7	8

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

DOCKET NUMBER 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

EVENT DATE REPORT DATE

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

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02	On July 17, 1983, while performing the eighteen month Division I Standby
03	Diesel Generator Functional Test (24 hour test run of T.S.4.8.1.1.2.d.9)
04	the starting air valve for the No. 8 right cylinder failed. The valve
05	failed approximately 16 hours into the test. On July 24, approximately 6
06	hours into a diesel test run, the No. 1 left bank cylinder air start
07	valve on the Division I Diesel also failed. This is reported in
08	accordance with T.S.4.8.1.1.3 and pursuant to T.S.6.9.1.12.1.

COMP VALVE

80

7 8 9

0 9

7 8

SYSTEM CODE
E E 11

CAUSE CODE
X 12

CAUSE SUBCODE
Z 13

COMP. SUBCODE
Z 15

VALVE SUBCODE
Z 16

REVISION NO.
1 32

COMPONENT MANUFACTURER
D 0 5 5 26

SEQUENTIAL REPORT NO.
0 8 2 24

OCURRENCE CODE
0 1 28

REPORT TYPE
X 30

PRIME COMP. SUPPLIER
A 25

ATTACHMENT SUBMITTED
Y 23

NPRD-4 FORM SUB.
N 24

SHUTDOWN METHOD
Z 27

HOURS
0 0 0 0 40

EVENT YEAR
8 3 21 22

LER/RO REPORT NUMBER
17

ACTION TAKEN
X 18

FUTURE ACTION
Z 19

EFFECT ON PLANT
Z 20

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS
27

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1	0	The cause of the valve failures is attributed to the contamination of
1	1	atmospheric vent lines and malfunctions of the starting air distributor.
1	2	Damaged valves and the starting air distributor were replaced. A P.M.
1	3	program was established to check and replace air distributor filters.
1	4	This is considered a final report.

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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

FACILITY STATUS (8) (28) % POWER (0) (0) (0) (0) (29) (30) OTHER STATUS (30)

METHOD OF DISCOVERY (B) (31) Surveillance Testing (32) DISCOVERY DESCRIPTION (32)

ACTIVITY CONTENT RELEASED OF RELEASE (1) (6) (7) (33) (7) (34) (35) AMOUNT OF ACTIVITY (35)

LOCATION OF RELEASE (NA) (36)

PERSONNEL EXPOSURES		TYPE		DESCRIPTION	
NUMBER					
1	7	0	0	0	NA

PERSONNEL INJURIES		DESCRIPTION	
NUMBER			
000	40	NA	

7 8 9 11 12
LOSS OF OR DAMAGE TO FACILITY (43)
TYPE DESCRIPTION
1 9 2 (42) NA
8309190187 830909
PDR ADCK 05000416
S PDR
80

7 8 9 10 PUBLICITY DESCRIPTION (44) NA 68 69 80 NRC USE ONLY

NAME OF PREPARER Ron Byrd

PHONE: _____

Supplementary Information
To LER 83-082/01 X-1

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

Technical Specification Involved: 3.8.1.2

Reported Under Technical Specification: 6.9.1.12.1

Event Narrative:

This is an update to a previous report submitted on August 1, 1983. The event for which the report was submitted is described in the following paragraphs.

On July 17, 1983, while performing a Division I Diesel Generator 24 hour test run, the starting air valve for the number eight (8) right bank cylinder failed. The valve leaked, allowing exhaust air to enter the air start header, overheating the header. The diesel was secured and the air start valve was replaced. At the time, Division II and Division III diesels were operable.

On July 24, 1983, a similar event occurred, this time on the Division I number one (1) left bank cylinder starting air valve. The valve began leaking approximately six (6) hours into the test. The load on the diesel generator was reduced to approximately 5.7 megawatts. At this point the load could no longer be reduced due to loss of governor control. The generator output breaker was tripped which caused the diesel to trip on overspeed.

Although the exact root cause could not be determined, an inspection revealed the following:

1. The atmospheric vent lines on the Starting Air Header were completely blocked by carbon particles. This would cause abnormal pressure to the valves.
2. The Starting Air Distributors were contaminated with carbon particles.
3. The Right Bank Starting Air Distributor was found to have some internal assemblies malfunctioning or broken. The Left Bank Starting Air Distributor was contaminated but still functional.
4. The #1 Right Bank Starting Air Valve was found corroded and frozen such that it would not open. It was discovered that the starting air supply line was blocked, which caused the valve to remain closed.
5. The #7 Left Bank Starting Air Valve had begun to burn.
6. The filters which are just upstream from the Starting Air Distributors were found to have a significant buildup of carbon particles.
7. The #8 Right Bank Starting Air Valve face and seating surfaces showed signs of pitting.

8. The #1 Left Bank Starting Air Valve was observed to be slightly open and could not be seated. No signs of pitting were evident other than the actual burned area.
9. Also, during the inspection, a connector push rod was found to have a failed weld which secured the ball to the rod assembly.

Corrective actions taken were:

1. The left bank vent line was cleaned and the right bank vent line was replaced.
2. Air start valves #1 left bank, #1 right bank, #3 left bank, #6 left bank, #7 left bank and #8 right bank were replaced.
3. The Right Bank Starting Air Distributor was replaced.
4. All air distributor lines were cleaned and filters replaced.
5. The connector push rod was also replaced. Design Engineering determined that the connector push rod failure was due to a poor material selection by the vendor. The high carbon steel ball bearing material cannot be successfully welded to the tubing. Engineering will pursue the design of an acceptable replacement component expected to be implemented before or during the first refueling outage.
6. A Preventive Maintenance program has been established to periodically check/replace the starting air distributor filters.

The event originally reported as a valid failure is now considered invalid pursuant to Regulatory Position C.2.e(3) of Regulatory Guide 1.108. There have been two valid failures since receipt of the operating license. The present testing frequency is once per 14 (fourteen) days. This is submitted as a final report.



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

NUCLEAR PRODUCTION DEPARTMENT

SEP 14 10:35
September 9, 1983

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
Update Report - Invalid Failure of
Division I Standby Diesel
Generator
LER 83-082/01 X-1
AECM-83/0507

This letter submits an update to a previous report submitted on August 1, 1983. The event for which the report was submitted occurred on July 17, 1983, while performing the eighteen (18) month Division I Standby Diesel Generator Functional Test, when the starting air valve for the number eight (8) right cylinder failed approximately 16 hours into the test. On July 24, 1983, approximately 6 hours into a diesel test, the number (1) left bank cylinder air start valve on the Division I diesel failed. These failures were reported in accordance with Technical Specification 4.8.1.1.3 and pursuant to Technical Specification 6.9.1.12.1.

The two failures were originally reported as valid failures but are now considered invalid failures pursuant to Regulatory Position C.2.e(3) of Regulatory Guide 1.108. Therefore, rather than there being four valid failures since the receipt of the operating license, there have been only two. Our investigation into the cause of the events and corrective actions to prevent event recurrence is complete. Attached is LER 83-082/01 X-1 with Supplementary Information. This is a final report.

Yours truly,

L. F. Dale
for L. F. Dale
Manager of Nuclear Services

EBS/Stad:rg

Attachment

cc: See next page

Member Middle South Utilities System

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MISSISSIPPI POWER & LIGHT COMPANY

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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