

LICENSEE EVENT REPORT

Attachment to AECM-84/0072

Page 1 of 2

CONTROL BLOCK:

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1 M S G S S S 1 2 0 0 - 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
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DOCKET NUMBER EVENT DATE REPORT DATE

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 On 10/26/83, the RCIC system was declared inoperable and an LCO was
0 3 entered pursuant to T.S.3.7.3 when attempts to secure the RCIC turbine
0 4 via the trip pushbutton failed. The turbine trip throttle valve latch
0 5 disengaged but the valve failed to fully close. Also on 11/1/83, after
0 6 correction of this problem the RCIC turbine began to trip on overspeed
0 7 during start attempts. The LCO was lifted on 11/9/83, when the plant
0 8 entered the shutdown mode with reactor pressure less than 135 psig.
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

0 9 SYSTEM CODE C E 11 CAUSE CODE X 12 CAUSE SUBCODE Z 13 COMPONENT CODE V A L V E X 14 COMP. SUBCODE X 15 VALVE SUBCODE G 16
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 YEAR 8 3 SEQUENTIAL REPORT NO. 1 7 0 OCCURRENCE CODE 0 3 REPORT TYPE X REVISION NO. 1
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
ACTION TAKEN F 18 FUTURE ACTION Z 19 EFFECT ON PLANT Z 20 SHUTDOWN METHOD Z 21 HOURS 0 0 0 0 ATTACHMENT SUBMITTED Y 23 NPD-4 FORM SUB. N 24 PRIME COMP. SUPPLIER N 25 COMPONENT MANUFACTURER G 1 5 3 26
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

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 Infrequent operation resulted in oxidation on close tolerance parts
1 1 which caused the sticking trip valve. The overspeed trips were due to
1 2 the governor valve not closing fast enough on turbine starts. A startup
1 3 bypass valve is being installed to prevent this. This is a final report.
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

1 4 FACILITY STATUS 8 28 % POWER 0 0 3 29 OTHER STATUS NA 30 METHOD OF DISCOVERY C 31 Startup Testing 32 DISCOVERY DESCRIPTION
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
ACTIVITY CONTENT 1 6 Z 33 Z 34 NA 35 AMOUNT OF ACTIVITY NA 36 LOCATION OF RELEASE
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
PERSONNEL EXPOSURES NUMBER 0 0 0 37 TYPE Z 38 DESCRIPTION NA 39
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
PERSONNEL INJURIES NUMBER 0 0 0 40 DESCRIPTION NA 41
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
LOSS OF OR DAMAGE TO FACILITY TYPE Z 42 DESCRIPTION NA 43
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
PUBLICATION ISSUED N 44 DESCRIPTION NA 45
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
NRC USE ONLY
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PDR ADOCK 05000416
S PDR

NAME OF PREPARER Jerry Parker

PHONE

SUPPLEMENTARY INFORMATION TO
LER 83-170/03 X-1

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

Technical Specification Involved: 3.7.3
Reported Under Technical Specification: 6.9.1.13.b

Event Narrative:

At 2130 hours on October 26, 1983, attempts to secure the RCIC turbine failed. An operator depressed the trip pushbutton but the trip throttle valve failed to fully close. Test personnel investigating the valve position caused the valve to close when they bumped the side of the valve. It was determined that the latch had disengaged but the valve stuck before fully closing.

The RCIC system was declared inoperable and an LCO was entered pursuant to Technical Specification 3.7.3. The HPCS system was operable. The valve was disassembled, cleaned, and reinstalled on November 1. The valve internals were oxidized causing the tight tolerances. This oxidation is attributed to infrequent operation. The turbine had not been operated since preoperational testing.

Following cleaning of the valve the turbine began to trip on overspeed during start attempts. It was determined that the governor valve was not closing fast enough on turbine start to prevent turbine speed from reaching the trip setpoint. The governor valve is normally open and is closed by oil pressure generated by the turbine. Oil pressure did not increase fast enough to allow the governor valve to control turbine speed.

As an interim measure, a mechanical stop was installed to limit the governor valve position to 40% of full open. This prevented the turbine from overspeeding until oil pressure built up to control the governor valve.

On November 9, 1983, at 0400 hours, the plant entered cold shutdown with reactor pressure less than 135 psig. RCIC was therefore no longer required to be operable. The shutdown was planned rather than due to the requirement of the action statement. RCIC had been inoperable for 13 days 6.5 hours.

As a final solution, a startup bypass valve is being installed around the auto initiation valve. This valve will be part of the automatic initiation logic and will allow the turbine to roll and build up oil pressure before a large amount of steam is supplied to the turbine which could cause it to overspeed.



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

84 FEB 17 A 8:54 February 13, 1984

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
Update Report - RCIC System
Declared Inoperable
LER 83-170/03 X-1
AECM-84/0072

This letter submits an update to the previous report submitted on November 25, 1983. The event for which the report was submitted occurred on October 26, 1983, when the Reactor Core Isolation Cooling (RCIC) system was declared inoperable and a Limiting Condition for Operation (LCO) was entered pursuant to Technical Specification 3.7.3 when attempts to secure the RCIC turbine via the trip pushbutton failed. The turbine trip throttle latch disengaged but the valve failed to fully close. On November 1, 1983, after correction of this problem the RCIC turbine began to trip on overspeed during start attempts. This was reported pursuant to Technical Specification 6.9.1.13.b.

Corrective action to prevent event recurrence is being implemented. This is a final report. Attached is LER 83-170/03 X-1 with Supplementary Information.

Yours truly,

L. Dale

L. Dale
Manager of Nuclear Services

EBS/SHH:sad
Attachment

cc: (See Next Page)

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MISSISSIPPI POWER & LIGHT COMPANY

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