

NRC Form 308  
(9-83)U.S. NUCLEAR REGULATORY COMMISSION  
APPROVED OMS NO. 3190-0104  
EXPIRES: 8/31/86

## LICENSEE EVENT REPORT (LER)

|                                                                                   |        |                                                                                                              |                |                   |                 |                  |                 |              |                      |                                                          |  |       |                               |                                                              |  |
|-----------------------------------------------------------------------------------|--------|--------------------------------------------------------------------------------------------------------------|----------------|-------------------|-----------------|------------------|-----------------|--------------|----------------------|----------------------------------------------------------|--|-------|-------------------------------|--------------------------------------------------------------|--|
| FACILITY NAME (1)<br>Grand Gulf Nuclear Station - Unit 1                          |        |                                                                                                              |                |                   |                 |                  |                 |              |                      | DOCKET NUMBER (2)<br>0 5 0 0 0 4 1 1 6                   |  |       |                               | PAGE (3)<br>1 OF 13                                          |  |
| TITLE (4)<br>Unplanned RCIC Isolation Due To Failed Calibration Unit Power Supply |        |                                                                                                              |                |                   |                 |                  |                 |              |                      |                                                          |  |       |                               |                                                              |  |
| EVENT DATE (5)                                                                    |        |                                                                                                              | LER NUMBER (6) |                   |                 |                  | REPORT DATE (7) |              |                      | OTHER FACILITIES INVOLVED (8)                            |  |       |                               |                                                              |  |
| MONTH                                                                             | DAY    | YEAR                                                                                                         | YEAR           | SEQUENTIAL NUMBER | REVISION NUMBER | MONTH            | DAY             | YEAR         | FACILITY NAMES<br>NA |                                                          |  |       | DOCKET NUMBER(S)<br>0 5 0 0 0 |                                                              |  |
| 0 6                                                                               | 0 7    | 8 6                                                                                                          | 8 6            | 0 2 1             | 0 0             | 0 7              | 0 7             | 8 6          |                      |                                                          |  |       | 0 5 0 0 0                     |                                                              |  |
| OPERATING MODE (9)<br>1                                                           |        | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11) |                |                   |                 |                  |                 |              |                      |                                                          |  |       |                               |                                                              |  |
| POWER LEVEL (10)<br>0 6 5                                                         |        | 20.402(b)                                                                                                    |                |                   |                 | 20.406(e)        |                 |              |                      | <input checked="" type="checkbox"/> 80.73(a)(2)(iv)      |  |       |                               | 73.719)                                                      |  |
|                                                                                   |        | 20.406(a)(1)(i)                                                                                              |                |                   |                 | 80.38(a)(1)      |                 |              |                      | <input type="checkbox"/> 80.73(a)(2)(v)                  |  |       |                               | 73.71(a)                                                     |  |
|                                                                                   |        | 20.406(a)(1)(ii)                                                                                             |                |                   |                 | 80.38(a)(2)      |                 |              |                      | <input type="checkbox"/> 80.73(a)(2)(vi)                 |  |       |                               | OTHER (Specify in Abstract below and in Text, NRC Form 308A) |  |
|                                                                                   |        | 20.406(a)(1)(iii)                                                                                            |                |                   |                 | 80.73(a)(2)(i)   |                 |              |                      | <input type="checkbox"/> 80.73(a)(2)(vii)(A)             |  |       |                               |                                                              |  |
|                                                                                   |        | 20.406(a)(1)(iv)                                                                                             |                |                   |                 | 80.73(a)(2)(ii)  |                 |              |                      | <input type="checkbox"/> 80.73(a)(2)(vii)(B)             |  |       |                               |                                                              |  |
|                                                                                   |        | 20.406(a)(1)(v)                                                                                              |                |                   |                 | 80.73(a)(2)(iii) |                 |              |                      | <input type="checkbox"/> 80.73(a)(2)(x)                  |  |       |                               |                                                              |  |
| LICENSEE CONTACT FOR THIS LER (12)                                                |        |                                                                                                              |                |                   |                 |                  |                 |              |                      |                                                          |  |       |                               |                                                              |  |
| NAME<br>Ronald W. Byrd/Licensing Engineer                                         |        |                                                                                                              |                |                   |                 |                  |                 |              |                      | TELEPHONE NUMBER<br>AREA CODE 610 11 413 17 1-12 11 1419 |  |       |                               |                                                              |  |
| COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)        |        |                                                                                                              |                |                   |                 |                  |                 |              |                      |                                                          |  |       |                               |                                                              |  |
| CAUSE                                                                             | SYSTEM | COMPONENT                                                                                                    | MANUFACTURER   | REPORTABLE TO NRC | CAUSE           | SYSTEM           | COMPONENT       | MANUFACTURER | REPORTABLE TO NRC    |                                                          |  |       |                               |                                                              |  |
| X                                                                                 | BLN    | TX 1 1                                                                                                       | R 131619       | N                 |                 |                  |                 |              |                      |                                                          |  |       |                               |                                                              |  |
|                                                                                   |        |                                                                                                              |                |                   |                 |                  |                 |              |                      |                                                          |  |       |                               |                                                              |  |
| SUPPLEMENTAL REPORT EXPECTED (14)                                                 |        |                                                                                                              |                |                   |                 |                  |                 |              |                      | EXPECTED SUBMISSION DATE (15)                            |  | MONTH | DAY                           | YEAR                                                         |  |
| YES (If yes, complete EXPECTED SUBMISSION DATE)                                   |        |                                                                                                              |                |                   |                 |                  |                 |              |                      | <input checked="" type="checkbox"/> NO                   |  |       |                               |                                                              |  |

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On June 7, 1986, an unplanned Reactor Core Isolation Cooling (RCIC) system isolation occurred due to a false high steam flow trip signal. During a vent and fill of the associated transmitter reference leg, maintenance technicians placed the calibration unit in "calibration" in accordance with procedure. This precautionary action prevents an isolation from any erroneous signals that may result from the reference leg fill and vent effort by providing a signal to the trip unit actuating normal conditions. However, a faulty unit power supply caused the calibration unit output to drift to the trip setpoint actuating the RCIC isolation valve logic. The faulty power supply was replaced. The instrument is a Rosemount model number 510DU. The condition which caused the unplanned isolation would only occur with the calibration unit in service.

8607140079 860707  
PDR ADOCK 05000416  
S PDR

J10AECM86070101 - 3

IE22  
11

NRC Form 386A  
(9-83)

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/85

| FACILITY NAME (1)                   | DOCKET NUMBER (2) | LER NUMBER (5) |                   |                 | PAGE (3) |    |     |
|-------------------------------------|-------------------|----------------|-------------------|-----------------|----------|----|-----|
|                                     |                   | YEAR           | SEQUENTIAL NUMBER | REVISION NUMBER |          |    |     |
| Grand Gulf Nuclear Station - Unit 1 | 0 5 0 0 0 4 1 6   | 8 6            | — 0 2 1           | — 0 0           | 0 2      | OF | 0 3 |

TEXT (If more space is required, use additional NRC Form 386A's) (17)

## A. REPORTABLE OCCURRENCE

On June 7, 1986 at approximately 1738, an inadvertent Reactor Core Isolation Cooling (RCIC) system isolation occurred due to a false high steam flow trip signal. Although RCIC is not an ESF system, the isolation is considered an ESF function and is reportable pursuant to 10CFR50.73(a)(2)(iv). A four hour notification was made pursuant to 10CFR50.72(b)(2)(ii).

## B. INITIAL CONDITIONS

The plant was operating in Mode 1 at approximately 65 percent power.

## C. DESCRIPTION OF OCCURRENCE

On June 7, 1986 at 1650, operators declared the "B" channel of the RHR/RCIC steam line high flow isolation trip function inoperable when it failed the 12 hour channel check. The Limiting Condition for Operation (LCO) requires the affected system isolation valves to be closed within one hour and the affected system be declared inoperable.

Maintenance personnel determined that the transmitter reference legs required backfilling to restore the channel to operation. Maintenance technicians placed the associated calibration unit in calibration in accordance with procedure to prevent the trip unit from tripping during the fill and vent task. However, a drift of the calibration unit setting caused a false trip signal input to the trip unit resulting in a closure of the RCIC steam line isolation valve.

## D. APPARENT CAUSE

The trip unit functions to isolate the RCIC turbine steam supply line at a differential pressure of approximately 145 inches water column. The calibration unit is placed in service to send a 12 milliamp DC signal to the trip unit which corresponds to a 0 inch water column. This precautionary action prevents an isolation from any erroneous signals that may result from the reference leg vent and fill task. However, on June 7, 1986, a faulty calibration unit power supply caused the milliamp signal to drift enough to trip the trip unit and then drift back to reset the trip unit. The instrument is a Rosemount model number 510DU.

NRC Form 388A  
(9-83)

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO 3150-0104

EXPIRES 8/31/85

| FACILITY NAME (1)                 | DOCKET NUMBER (2)   | LER NUMBER (6) |                   |                 | PAGE (3) |        |
|-----------------------------------|---------------------|----------------|-------------------|-----------------|----------|--------|
|                                   |                     | YEAR           | SEQUENTIAL NUMBER | REVISION NUMBER |          |        |
| Grand Gulf Nuclear Station-Unit 1 | 0 5 0 0 0 4 1 6 8 6 | —              | 0 2 1             | —               | 0 0 0 3  | OF 0 3 |

TEXT (If more space is required, use additional NRC Form 388A's) (17)

## E. SUPPLEMENTAL CORRECTIVE ACTION

The isolation valve was reopened and trip channel restored to service by 1745 on June 7, 1986. The faulty power supply for the calibration unit was replaced.

## F. SAFETY ASSESSMENT

The unplanned isolation resulted in the unavailability of the RCIC system for a short period of time. It is noted that an LCO condition existed prior to the isolation which required closure of the isolation valve by 1750. The High Pressure Core Spray system was operable and available during this time.

The condition which caused the unplanned isolation would only occur with the calibration unit in service. Therefore, there was no affect on the RCIC safety function during normal service.



# MISSISSIPPI POWER & LIGHT COMPANY

*Helping Build Mississippi*

P. O. BOX 1640, JACKSON, MISSISSIPPI 39215-1640

July 7, 1986

O. D. KINGSLEY, JR.

VICE PRESIDENT - NUCLEAR OPERATIONS

Document Control Desk

U. S. Nuclear Regulatory Commission

Washington, D. C. 20555

Gentlemen:

SUBJECT: Grand Gulf Nuclear Station  
Unit 1  
Docket No. 50-416  
License No. NPF-29  
File: 0260/L-835.0  
Unplanned RCIC Isolation Due to  
Failed Calibration Unit Power  
Supply  
LER 86-021-00  
AECM-86/0204

Attached is Licensee Event Report (LER) 86-021-00 which is a final report.

Yours Truly,

ODK:lwmm

Attachment

cc: Mr. T. H. Cloninger (w/a)  
Mr. R. B. McGehee (w/a)  
Mr. N. S. Reynolds (w/a)  
Mr. H. L. Thomas (w/o)  
Mr. R. C. Butcher (w/a)

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

Dr. J. Nelson Grace, Regional Administrator (w/a)  
U. S. Nuclear Regulatory Commission  
Region II  
101 Marietta St., N. W., Suite 2900  
Atlanta, Georgia 30323

IE22  
11