



# MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

NUCLEAR PRODUCTION DEPARTMENT

August 5, 1983

Office of Inspection & Enforcement  
U. S. Nuclear Regulatory Commission  
Region II  
101 Marietta Street, 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 0260/15525/15526/16694.4  
PRD-83/10, Interim Report,  
ASCO Spare Parts Kits for  
Scram Pilot Valve Solenoids  
AECM-83/0445

On August 4, 1983, Mississippi Power & Light Company notified Mr. Paul Fredrickson, of your office, of a Reportable Deficiency at the Grand Gulf Nuclear Station (GGNS) which MP&L has evaluated and determined to be reportable under the provisions of 10CFR21 for Unit 1. The deficiency concerns the receipt of improperly assembled ASCO spare parts kits for the scram pilot valve solenoids. It is indeterminate at this time as to whether this deficiency is applicable to Unit 2.

Details are in our attached Interim Report. We expect to submit our next report by September 9, 1983.

Yours truly,

J. P. McGaughy, Jr.

RDC/wet

RDC:dr  
ATTACHMENT

cc: See page 2

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ATLANTA, GEORGIA  
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Mr. J. P. O'Reilly  
NRC

AECM-83/0445  
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cc: Mr. J. B. Richard  
Mr. R. B. McGehee  
Mr. T. B. Conner

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

Mr. G. B. Taylor  
South Miss. Electric Power Association  
P. O. Box 1589  
Hattiesburg, MS 39401

INTERIM REPORT NO. 1 FOR PRD-83/10

1. Name and address of the individual ... informing the commission:

J. P. McGaughy, Jr.  
Vice-President, Nuclear  
P.O. Box 1640  
Jackson, Mississippi 39205

Notification of Part 21 applicability made to Mr. J. P. O'Reilly, NRC, Region II by letter AECM-83/0445, August 5, 1983.

2. Identification of the facility ... which ... contains a deficiency:

Grand Gulf Nuclear Station (GGNS) Unit 1  
Port Gibson, Mississippi 39150

3. Identification of the firm ... supplying the basic component which ... contains a deficiency:

Supplied to Grand Gulf by General Electric Co. (G. E.) and  
manufactured by Automatic Switch Company (ASCO).

4. Nature of the deficiency ... and the safety hazard which ... could be created by such a deficiency ...:

A. Description of the Deficiency

Several hydraulic control unit scram pilot valves were determined to be buzzing, chattering and/or leaking air through the solenoid valves' vent. Examination of spare parts kits manufactured by ASCO and supplied by G. E. has revealed ASCO preassembled items which were not assembled according to ASCO assembly procedures. The items in question are the solenoid base subassembly, core spring, and core assembly for the "A" solenoid side of the valve. The core springs are installed in reverse direction into the core contrary to ASCO procedures. Approximately 30% of the new preassembled spare parts kits, to date, from ASCO have been found with the core springs reversed. Discussions with ASCO and G. E. indicate that reversed core springs will cause "chattering" and eventual failure of the valve.

B. Analysis of Safety Implications

Failure of the solenoid valve due to damaged internals challenges the ability to scram a control rod, thus presenting a situation which could represent a substantial safety hazard. No failures to scram control rods due to faulty scram pilot valve solenoids have been reported at GGNS as of this date.

5. The date on which the information of such deficiency ... was obtained.

Mississippi Power and Light discovered the defect on July 27, 1983. We then evaluated the deficiency and determined the deficiency could represent a substantial safety hazard. The deficiency was then reported to Mr. Paul Fredrickson, of your office, on August 4, 1983. The MP&L "Responsible Officer," Mr. J. P. McGaughy, Jr., has been notified.

6. In the case of the basic component ... the number and location of all such components.

We do not have knowledge of the location of defective equipment located other than at GGNS.

7. The corrective action which has been taken ... the name of the individual ... responsible for the action; and the length of time that has been ... taken to complete the action.

A. Corrective Actions Taken

- 1) All spare parts kits will be inspected prior to use to ensure the preassembled items are properly assembled.
- 2) All 193 Hydraulic Control Unit (HCU) scram pilot valves have been refurbished.
- 3) A chemical flush of adjacent air supply is in process.
- 4) Testing of all affected components will be completed prior to the closure of nonconformance tracking documents.

B. Responsible Individual

C. K. McCoy  
Plant Manager  
Mississippi Power & Light Co.  
Responsible for Unit 1

C. Length of Time to Complete Actions

Inspection of spare parts kits prior to use will be an ongoing evolution as spare parts kits are received.

We expect to provide additional information by September 9, 1983.

8. Any advice related to the deficiency ... that has been, is being, or will be given to purchasers or licensees:

MP&L has no advice to offer relative to this matter to other purchasers or licensees.

bcc: Mr. D. C. Lutken  
Mr. J. P. McGaughy, Jr.  
Mr. T. E. Reaves, Jr.  
Middle South Services Nuclear Activities  
Mr. J. F. Hudson  
Mr. C. D. Wood  
Mr. Adrian Zaccaria  
Mr. A. R. Smith  
Mr. R. S. Trickovic  
Mr. M. D. Archdeacon  
Mr. J. W. Yelverton  
Mr. L. F. Dale  
Mr. C. K. McCoy  
Mr. T. H. Cloninger  
Mr. L. F. Daughtery  
Mr. J. F. Pinto  
Mr. S. H. Hobbs  
Mr. C. C. Hayes  
Mr. A. G. Wagner  
Mr. A. S. McCurdy  
Mr. W. E. Edge  
Mr. J. E. Reaves  
File (LCTS) (2)  
PRD File  
Manual File  
File (Plant)  
File (Project) [6]

Mr. M. D. Houston  
U. S. Nuclear Regulatory Commission  
Division of Licensing  
Washington, D. C. 20555