



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

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April 6, 1984

JAMES P. McGAUGHY, JR.  
VICE PRESIDENT

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

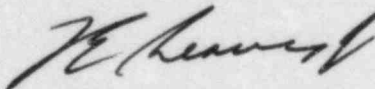
Dear Mr. O'Reilly:

SUBJECT: Grand Gulf Nuclear Station  
Unit 1  
Docket No. 50-416  
License No. NPF-13  
File 0260/15525/15526/16694.4  
PRD-84/06, Final Report for  
Unit 1, Interim Report for  
Unit 2, Potential Defect in  
Spare Piston Skirt Castings  
AECM-84/0213

On April 2, 1984, Mississippi Power & Light Company notified Mr. R. Carroll, of your office, of a Reportable Deficiency at the Grand Gulf Nuclear Station (GGNS). The deficiency concerns the improper heat treatment for certain spare Transamerica Delaval, Inc. (TDI) piston skirt castings.

MP&L has evaluated this deficiency and has determined that it is reportable under the provisions of 10CFR21 for Unit 1. Reportability for Unit 2 is indeterminate at this time. Attached is the Unit 1 Final Report and Unit 2 Interim Report. An update is expected for Unit 2 by October 5, 1984.

Yours truly,

  
For J. P. McGaughy, Jr.

RDC/KDS  
RDC/KDS:dr  
ATTACHMENT

cc: See page 2

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Mr. J. P. O'Reilly  
NRC

AECM-84/0213

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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

FINAL REPORT FOR UNIT 1 FOR PRD-84/06  
INTERIM REPORT NO. 1 FOR UNIT 2

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

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

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

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

Determination of reportability for Unit 2 is continuing at this time.

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

The piston skirt castings were manufactured by Transamerica Delaval, Inc., Oakland California, and supplied to Grand Gulf by Bechtel Power Corporation, Gaithersburg, Maryland.

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

A. Description of the Deficiency

The deficiency involves a condition with a spare piston skirt, heat number W93-566G, which contains the potential for possible residual stress. This condition was caused by improper heat treating during manufacture. The residual stress in combination with operating stress could cause cracking of the piston skirt during operation of the diesel engine, which could result in engine failure.

B. Analysis of Safety Implications

The spare piston skirt is located in the warehouse, and was available for use in either of the two Delaval Unit 1 standby diesel engines. Had the spare piston skirt been used, failure of the piston skirt would have caused the engine to be inoperable. Therefore, a failure of the engine could result in the diesel generator's inability to perform its intended design functions in the event of a LOCA.

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

Mississippi Power and Light received information of the deficiency on December 16, 1983, per Delaval letter to MP&L. An evaluation was performed and the deficiency was reported to Mr. R. Carroll, of your office, as a reportable deficiency for Unit 1 on April 2, 1984. The MP&L "Responsible Officer," Mr. J. P. McGaughy, Jr., will be notified when he returns to his office.

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

There are two spare piston skirt assemblies at GGNS Unit 1. However, only one spare piston skirt assembly, heat number W93-566G, was identified as being included in the suspect heat numbers identified by Transamerica Delaval. Other locations of defective components were listed by Transamerica Delaval in their notification letter to the NRC of October 28, 1982.

We do not have knowledge of the location of other defective equipment.

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

Material Nonconformance Report (MNCR) 1029-83 has been issued to document the nonconformance. A Plant Quality hold tag has been placed on the defective piston skirt. The MNCR disposition is pending direction from Transamerica Delaval for return of the defective piston skirt for repair, nondestructive testing and proper heat treating.

B. Responsible Individual

Unit 1  
J. E. Cross  
Plant Manager  
Mississippi Power & Light Co.

C. Length of Time to Complete Actions

The defective spare piston skirt will be returned to the vendor upon MP&L's receipt of formal authorization.

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

As the deficiency did not originate with MP&L, we have no advice to offer.