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ACTION:

PRELIMINARY EVALUATION OF THE ATTACHED REPORT INDICATES LEAD RESPONSIBILITY FOR FOLLOWUP AS SHOWN BELOW:

IE

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OTHER

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REV. 8/1/80



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

NUCLEAR PRODUCTION DEPARTMENT

August 4, 1980

Office of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, N.W.
Suite 3100
Atlanta, Georgia 30303

86-268-000

Attention: Mr. J. P. O'Reilly, Director

Dear Mr. O'Reilly:

SUBJECT: Grand Gulf Nuclear Station
Units 1 and 2
Docket Nos. 50-416/417
File 0260/15525/15526
PRD-80/17, Final Report, Incorrect
Bolt Torquing on High Pressure
Core Spray Pump
AECM-80/182

Reference: AECM-80/99, 5/9/80

On April 10, 1980, Mississippi Power & Light Company notified Mr. F. Cantrell of your office of a Potentially Reportable Deficiency (PRD) at the Grand Gulf Nuclear Station (GGNS) construction site. The deficiency concerns out of specification bolt torque values noted on the High Pressure Core Spray (HPCS) pump. The pump was manufactured by the Byron Jackson Pump Division of Borg Warner Corporation and was procured by General Electric for use at GGNS.

We have determined this deficiency to be reportable within the meaning of both 10CFR50.55(e) and 10CFR21. Our final reports are attached.

Yours truly,

J. P. McGaughy, Jr.
700 J. P. McGaughy, Jr.
Assistant Vice President,
Nuclear Production

ATR:mt
Attachment

MISSISSIPPI POWER & LIGHT COMPANY

Mr. J. P. O'Reilly
NRC

AECM-80/182
Page 2

cc: Mr. N. L. Stampley
Mr. R. B. McGehee
Mr. T. B. Turner

Mr. Victor Stello, Director, w/3
Division of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

bcc: Dr. D. C. Gibbs
Mr. N. L. Stampley
Mr. J. P. McGaughy
Mr. J. N. Ward
Mr. J. W. Yelverton
Mr. A. Zaccaria
Mr. L. F. Dale
Mr. C. K. McCoy
Mr. T. H. Cloninger
Mr. R. A. Ambrosino
Mr. C. L. Tyrone
Mr. M. Hunt
Mr. A. G. Wagner
PRD File
File

FINAL REPORT FOR PRD-80/17

I. Description of Deficiency

The NSSS Supplier issued a Field Disposition Instruction (FDI #32-42382) on August 7, 1978. The purpose of the FDI was to update the ECCS Pump Technical Manuals pending their revision. Specifically, the FDI updated the bolt torquing procedure to vendor preferred values. The pumps in question were those provided for the Residual Heat Removal (RHR), Low Pressure Core Spray (LPCS) and High Pressure Core Spray (HPCS) Systems. Based on the FDI, the tenth (10th) stage of the HPCS pump was disassembled and the thrust collar bolts ($\frac{1}{2}$ " dia. x 13 UNC) were checked for actual torque values. This check revealed that the actual torque values varied from 25-45 ft. lbs. These values were contrary to the vendor specified original torquing requirement of 15 ft. lbs. as well as the updated torquing values of 40-55 ft. lbs. specified by the FDI. Based on this preliminary check, the sample size was increased to check the actual torque values for the case bolts and thrust collar cap screws of the sixth (6th), seventh (7th), eighth (8th), and ninth (9th) stage of the HPCS pump. This check revealed additional inconsistencies in torquing values; for example, a number of 1 3/8" dia. casing studs were found 225 ft. lbs. lower than the minimum NSSS Supplier values.

II. Safety Implications

Had this condition remained uncorrected, the inconsistency in the "as assembled" torque values found within a stage of the pump could lead to unbalanced load distribution causing undue wear and vibration. This could result in pump degradation and a subsequent failure of the pump to perform its intended safety function.

III. Corrective Action

The ECCS Pumps for Unit I have been disassembled and retorqued to the values specified by the FDI. The Unit II ECCS pumps will be disassembled and retorqued to the appropriate values during system inspection and checkout. Details of this condition are available at the plant site in Bechtel MCR GGNS 71 and MP&L PRD-80/17.

1. Identification of individual(s) informing the NRC:

Name(s): W. ⁿ ^{ays}
A. ^{. ramey}

Telephone call to M. Hunt, NRC, Region II, 8/5/80.

Address: Mississippi Power & Light Company, P. O. Box 1640, Jackson, MS 39205

2. Identification of entity failing to comply or containing a defect (check appropriate blocks):

GRAND GULF NUCLEAR STATION

Unit 1

Unit 2

Other

(Specify)

3. Supplier: General Electric Co.
Nuclear Engineering Division
San Jose, CA

4. Nature of the defect or failure to comply and the safety hazard which is created or could be created by such defect or failure to comply:

See paragraphs I & II to Attachment A to AECM-80/182.

5. Date information obtained for this report: 8/4/80

6. Additional information for defective components incorporated in other facilities, as applicable:

Facility/Location

Number in use, supplied for,
or being supplied

(This information is not available to MP&L)

7. Corrective Action: See paragraph III to Attachment A to AECM-80/182.

Responsibility: Mississippi Power & Light Quality Assurance Section
(Name of individual or organization)

Time Required To Complete Action: Began: 4/14/80, Complete for Unit 1; Unit 2 corrective action complete by Unit 2 Fuel load, close of MCAR-71.

8. Advice related to the defect or failure to comply about the facility, activity, or basic component that has been, is being, or will be given to purchasers or licensees:

None given at this time (NOTE: General Electric Company stated that they do not agree that this condition should be reported under either 10CFR50.55(e) or 10CFR21.)