



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

JAMES P. McGAUGHY, JR.
ASSISTANT VICE PRESIDENT

August 3, 1981

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

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-80/56 Final Report, KCI Pipe
Support Installation
AECM-81/243

References: 1) AECM-81/39, 1/23/81
2) AECM-80/251, 10/13/80

On September 12, 1980, Mississippi Power & Light Company notified Mr. M. Hunt, of your office, of a Potentially Reportable Deficiency (PRD) at the Grand Gulf Nuclear Station (GGNS) construction site. The deficiency concerns piping supports installed by Reactor Controls, Inc. for the Control Rod Drive Hydraulic System. The installation of the piping supports was not in conformance with the original design.

An extensive engineering effort would be required to analyze the original supports as designed and/or installed to determine if they were adequate for their original loads and if they met the criteria and bases stated in the Final Safety Analysis Report. Therefore, we have determined that this deficiency is reportable under the provisions of 10CFR50.55(e). Since the affected components have not been turned over to MP&L for acceptance, this condition is not reportable under the provisions of 10CFR21. Our Final Report is attached.

Yours truly,

J. P. McGaughy, Jr.
J. P. McGaughy, Jr.

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ATTACHMENT

cc: See page 2

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Member Middle South Utilities System

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Mr. J. P. O'Reilly
NRC

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cc: Mr. N. L. Stampley
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Mr. T. B. Conner

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PRD or Inspection Report File
File

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

FINAL REPORT FOR PRD-80/56I. Description of the Deficiency

Pipe supports for the Control Rod Drive Hydraulic System (CH) were installed by Reactor Controls Inc. (RCI) with deviations from the approved design drawings. Several types of nonconformances were noted. Further investigation found that RCI's Quality Assurance Manual did not address the control of temporary materials or include provisions for design changes in the field. The deficiency affects the Control Rod Drive Hydraulic System and is applicable to both Unit 1 and Unit 2. It does not apply to the NSSS supplier.

The cause of the deficient condition was a deviation by Reactor Controls Incorporated from the installation drawings. RCI did not have a method of documenting, controlling, and approving the deviations from design drawings.

II. Analysis of Safety Implications

The possibility exists that the loss of Control Rod Drive insert and withdrawal supports during plant operations could conceivably prevent the CRD system from performing its intended function. A total of twenty eight (28) hangers were documented that have discrepancies between the as-built configuration and the design drawing. These conditions have been tracked by RCI.

Since an extensive engineering effort would be required to analyze the original supports as designed and/or installed to determine if they were adequate for their original loads and met the criteria and bases stated in the Final Safety Analysis Report, it has been determined that this deficiency is reportable under the provisions of 10CFR50.55(e). The affected components have not been accepted by MP&L, so this condition is not reportable under the provisions of 10CFR21.

III. Corrective Action Taken

The reason for the deviations of the installed hangers from the approved design drawings was a lack of proceduralized requirements. This condition affects all Control Rod Drive Hydraulic System piping supports.

To correct the identified deficiencies, Reactor Controls Inc. has issued an internal Stop Work Order outlining steps to be taken prior to resumption of work. All installed hangers in the Control Rod Drive Hydraulic System were inspected by Engineering and Quality Control personnel of RCI. Any deviations of the installed hangers from the latest drawing revisions were documented. Engineering Change Notices (ECN) or design drawing changes are being used to reflect the as-built condition. The ECN's and design drawings are to undergo a stress analysis review for design verification to "new loads" and will be submitted to our Architect/Engineer for review. These changes will be incorporated into the drawing, if found acceptable to

"new loads". Since the "new loads" requirements are more stringent than the original loads, an analysis for the original loads will not be conducted.

When the "new loads" evaluation is complete, all existing hangers will have been analyzed and classified as either:

- A) The support as designed and installed is verified as adequate and meets the "new loads" requirements through design analysis. The support is acceptable as is, or
- B) The support as designed and installed does not meet the "new loads" requirements through design analysis.

For those supports that do not meet the "new loads" requirements, one of the following steps will be taken:

- 1) The drawing will be revised as required and the support will be modified per drawing requirements and verified.
- 2) The support will be removed, scrapped, and a new support designed and installed.

To preclude recurrence, Reactor Controls Incorporated has issued an addendum to their Quality Assurance Manual which allows the use of a controlled and approved Engineering Change Notice to make changes to drawings. RCI has also issued a new controlled manual, entitled Quality Assurance Instructions, which requires inprocess inspection to be performed and documented on an ongoing basis to assure that design requirements are being met during fabrication and installation.

All corrective actions will be completed by fuel load.