



MISSISSIPPI POWER & LIGHT COMPANY

Helping Build Mississippi

P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

October 20, 1982

JAMES P. McGAUGHY, JR.
ASSISTANT VICE PRESIDENT

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, Regional Administrator

Dear Mr. O'Reilly:

SUBJECT: Grand Gulf Nuclear Station
Unit 2
Docket No. 50-417
License No. NPF-13
File 0260/15525/15526
PRD-82/36, Final Report,
Cadweld Rebar Splice Testing
AECM-82/2-002

On September 20, 1982, Mississippi Power & Light Company notified Mr. R. Butcher, of your office, of a Potentially Reportable Deficiency (PRD) at the Grand Gulf Nuclear Station (GGNS) construction site. The deficiency concerns cadweld rebar splice testing on Unit 2.

We have evaluated this deficiency and have determined that it is reportable under the provisions of 10CFR50.55(e) for Unit 2. It is not reportable under 10CFR21. All details are given in our attached Final Report.

Yours truly,

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

KDS:dr
ATTACHMENT

cc: See page 2

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Mr. J. P. O'Reilly
NRC

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Washington, D.C. 20555

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P. O. Box 1589
Hattiesburg, MS 39401

FINAL REPORT FOR PRD-82/36

I. Description of Deficiency

Paragraph 6.2.1.1 of Specification 9645-C-115.0, Revision 14, did not require, for Category I structures, cadweld testing for each bar size for T-series cadwelds as required by Reg. Guide 1.10 and FSAR commitments. The requirement for testing cadwelds for each bar size was deleted at Revision 11 of Spec. 9645-C-115.0. Therefore, cadweld splices for Unit 2 made during the period from May 15, 1982 to September 20, 1982, were not tested in accordance with the Regulatory Guide requirements.

The deficiency affects the Unit 2 Containment Building and Unit 2 Auxiliary Building. It does not apply to Unit 1 or the NSSS scope of supply. On Unit 1, cadwelds were tested in accordance with Regulatory Guide requirements. Substantiating records are available.

The testing requirement for each bar size was apparently inadvertently deleted. A thorough search of the correspondence and technical files has failed to reveal any specific cause for the deletion of the requirement.

II. Analysis of Safety Implications

Because Revision 11 of Spec. 9645-C-115.0, which states cadweld testing requirements for Category I structures, omitted the requirement for testing cadwelds for each bar size, cadweld testing was performed based upon total number of cadwelds for each splicing crew from May 15, to September 20, 1982. This reduced the frequency of testing for specific bar sizes. Therefore, it can be postulated that a lower confidence level of the integrity of the splices has been obtained.

III. Corrective Action Taken

The latest revisions of all safety related Civil Performance Specifications were reviewed by our Architect/Engineer. Results of this review indicated that the cited condition in an isolated case.

A Specification Change Notice (SCN) #1 to the referenced specification was issued on September 20, 1982. This SCN corrects the affected paragraph and requires cadweld splice testing of each bar size.

After the discovery of the omission of the testing requirement for each bar size, a review of all T-series cadweld splices was made. Where accessible T-series cadwelds were available in the sequencing required by the Regulatory Guide, the appropriate tensile tests were performed.

Inaccessible splices, which constituted about half of the splices made during this period, have been accepted "as is" based on qualifications of the welders, visual examinations of the cadwelds that had been performed, and/or tensile strength tests performed on production and sister splices. Also, in accordance with our Architect/Engineer's normal QC procedures all cadweld splices had received a visual inspection.

To prevent future recurrence of this deficiency, our Architect/Engineer's Civil Engineering personnel were reinstructed in the necessity of reviewing licensing commitments identified in design documents prior to implementing revisions to design documents. Also, an Engineering Department Project Instruction was issued by our Architect/Engineer which lists items that must be considered when revisions to specifications are written. These include project design criteria, functional requirements, SAR requirements, and applicable codes, standards, and regulatory requirements.

Present cadweld testing is being performed according to the requirements of Regulatory Guide 1.10.

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