MISSISSIPPI POWER & LIGHT COMPANY
Helping Build Mississippi
P. O. BOX 1640, JACKSON, MISSISSIPPI 39205

JAMES P. McGAUGHY, JR.
ASSISTANT VICE PRESIDENT

November 6, 1980

Office of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW
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 0260/15525/15526/15521
RII: JJB
Response to IE Inspection
Report 50-416/80-20,
50-417/80-13
AECM-80/274

Mississippi Power & Light Company received a Notice of Violation as Attachment A to your letter dated October 9, 1980 which transmitted IE Inspection Report 80-20/80-13. Although the response was due on November 3, 1980, Mississippi Power & Light is submitting this report on this date as explained to your Mr. P. K. Van Doorn on November 4, 1980. Our response is keyed to the item numbers identified in the inspection report.

NRC ITEM 50-417/80-20-22
50-416/80-13-22

1. Corrective Steps Taken and Results Achieved

Upon identification of the finding, the responsible auditor conducted further review of drawings, specification and discussed the criteria with Project Engineering. Upon determination that the design weld size was in fact adequate and within code requirements, the observation was stricken from the audit report and an explanation for the cause of the incorrect observation was made on the audit checklist.

2. Corrective Steps Taken to Avoid Further Noncompliance

An audit process training session was conducted on site on August 27, 1980. This session detailed areas of audit preparation, notification, pre-audit planning and audit performance with special emphasis on preparation, planning and verification of entries in the audit report. The auditor involved with noncompliance was in attendance at the training session.

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3. Date to Achieve Full Compliance

Full compliance was achieved August 27, 1980.

NRC ITEM 50-417/80-13-23
50-416/80-20-23

1. Corrective Steps Taken and Results Achieved

Upon reviewing the reference IE Inspection Report, it was determine that some confusion existed, at least within MP&L, during and after the inspection visit with regard to this concern. Grand Gulf Drawing 9645-MS-06, Rev. 6, Sheet 2 of 3 does not depict the acceptance criteria for the weld, but is for the preparation of the field buttweld transition details for valves, fittings and equipment. The acceptance criteria for the weld is contained in Paragraph 5.3 (k) of Specification 9645-M-204.0, Rev. 26, which references Article NC-4000 of ASME Section III of the 1974 Edition and Addenda through Summer 1974. Paragraph NC-4425 provides criteria for welding components of different diameters. Paragraph NC 4425 states, "When components of different diameters are welded together, there shall be a gradual transition between the two surfaces. The length of transition may include the weld. The slope of the transition shall be such that the length of offset ratio shall not be less than 3:1 (Fig. NC 3361.3-1 and NC 4233-1) unless greater slopes are shown to be acceptable for vessels designed for NC 3200.

Completed Field Weld 35 on Drawing 9645-M-1347A, Rev. 21 was reinspected. A similar valve to F-051B, not yet installed, was checked for acceptable weld preparation configuration. Based on these inspections, Field Weld 35 on Drawing 9645-M-1347A, Rev. 21 is in compliance to the acceptance criteria; ASME Code, Paragraph NC 4425. The key factor is that a 3:1 maximum slope was maintained for a minimum distance of 1½T from the end of the weld preparation. "T" is the nominal wall thickness, which in this case is .322". The weld metal extends .719" beyond the end of the weld preparation and exceeds the minimum distance (1½T = .483") with less than a 3:1 slope. In addition, the radius at the juncture of the weld material and the machined surface of the valve end was measured and found to far exceed the .05T minimum radius required by later editions of the code creating a smooth transition from weld to valve.

The present acceptance criteria for transition welds is addressed in the following manner:

- WD-1 is specified in the Bechtel Quality Assurance Manual, ASME Section III, Division 1, as the controlling procedure for quality control and documentation of welding and nondestructive examination (NDE) of ASME III Class 1, 2 and 3 components. WD-1 requires a WR-5 (field welding checklist) for welding and NDE of nuclear components. The WR-5 is placed adjacent to the weld by the QC engineer and remains there until welding and NDE are complete. Consequently, it is readily available to the QC engineer.

- The WR-5 has on it the engineering specification (9645-M-204.0) the applicable welding procedure specification and other information pertinent to welding and NDE on the general information side of the form. These variables are verified on the recorded side of the form. The initialing of item 16A by the QC engineer signifies that the weld is complete, visually examined and accepted, the reinforcement is checked and accepted, and the weld is released for NDE (if required).

- The acceptance of the weld is based on the applicable portions of the documents referenced on the WR-5, i.e., 9645-M-204.0, PT-SR-1, 2; RT-XG-2, etc, and other documents that do not appear on the WR-5 but are referenced by documents that are on the WR-5.

Even though the weld has been determined to be in compliance with the acceptance criteria, further corrective steps taken to provide better defined acceptance criteria is being established and is discussed in the following paragraph.

2. Corrective Steps Taken To Avoid Further Noncompliance

Reinspection of the subject weld confirmed compliance with the applicable code requirements and inspection criteria as shown above. After further discussions with NRC, Region II, inspectors, we concurred that clarification of the specific inspection criteria would enhance our program. Therefore, Bechtel's "Nondestructive Examination Standard Procedure", VE-BPC-1 titled, "Visual Examination", which is contained in Specification 9645-M-183.0 as Appendix 066, is being revised to include detailed acceptance criteria for welds on components of different diameters. The governing engineerng specification for safety-related piping installation, 9645-M-204.0, is also being revised to include specific reference to the use of VE-BPC-1 for visual examination.

2. Corrective Steps Taken To Avoid Further Noncompliance - Continued

As an interim measure, due to the time required to process the above stated revisions the following has been accomplished:

a. A training session has been held by the constructor with all welding Quality Control Engineers to reiterate the acceptance criteria for welds on components of different diameters.

b. A confirming memorandum, has been issued to all welding Quality Control Engineers, depicting the detailed acceptance criteria to be used until the issue of the appropriate revisions to the specifications involved.

3. Date To Achieve Full Compliance

The actions outlined above should be convincing as to the level of attention directed to an NRC concern. The interim actions taken and the commitment to revise Project Specifications has been undertaken to provide the NRC with an elevated level of confidenance in regard to our visual inspection technique for welding. It is felt that we were in full compliance with the MP&L Quality Assurance Program at the time of the inspection. Therefore, we courteously request that this notice of violation be reevaluated in light of the additional information furnished above.

NRC ITEM 50-416/80-20-24
50-417/80-13-24

1. Corrective Steps Taken and Results Achieved

Specification Change Notice 9 was issued August 22, 1980 to include Sanford Marker 1501 in Specification M-204, Revision 26.

2. Corrective Steps Taken to Avoid Further Noncompliance

The material engineer has been instructed to assure marking pens are listed in Specification M-204 prior to purchase. Additionally, field engineers and supervisors have been instructed that only marking pens listed in M-204 are to be used. Adequacy of training has been achieved, documented and verified by the Constructor's Quality Assurance organization.

3. Date to Achieve Full Compliance

Full compliance was achieved on October 31, 1980.

Sincerely,

For J. P. McGaughy, Jr.

ATR:lb

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

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