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the southern electric system

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United States Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region II - Suite 2900
101 Marietta Street, Northwest
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Reference: 50-424/85-08, 50-425/85-08

Attention: Mr. Roger D. Walker

The Georgia Power Company wishes to submit the following information in response to USNRC inspection report 50-424/85-08 and 50-425/85-08.

Deviation 50-424, 425/85-08-01, "Deviation of Commitments to AWS D1.1 Requirements for Inspection of Porosity"

The deviation identified a failure to include porosity as a cause for rejection of safety-related structural welds in the Vogtle Project's Appendix VC, "Visual Acceptance Criteria for Welds," which contains a commitment to AWS D1.1. As a result, welds connecting piece B5 to piece P201 in Unit 1 containment pipe rack R0006 were accepted by quality control inspectors even though the welds contained porosity clusters which were rejectable by AWS D1.1-1979 requirements. Georgia Power Company offers the following response to the deviation:

Georgia Power Company denies that a deviation from AWS D1.1 has occurred. Section 1.1.1 of AWS D1.1 allows the use of any complementary code or specification in conjunction with D1.1 for the design and construction of steel structures. The 1985 edition of AWS D1.1 further clarifies this provision in section 1.1.1.1 which states, "The fundamental premise of the Code is to provide general stipulations adequate to cover any situation. Acceptance criteria for production welds different from these specifications in the Code may be used for a particular application provided they are suitably documented by the proposer and approved by the engineer."

As indicated in the NRC inspection report, the Georgia Power Company has adopted Appendix VC, "Visual Inspection Criteria for Welds," as a complementary specification to the AWS D1.1 Structural Welding Code for the Vogtle Project. Appendix VC was developed and approved by Bechtel Power Corporation, the Vogtle Project architect/engineer, and has been incorporated as an attachment to the major construction specifications for the Vogtle Electric Generating Plant.

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Appendix VC establishes a classification system for weld joints and specifies detailed acceptance criteria for each classification. These acceptance criteria are consistent with industry guidelines and are supported by documented engineering justification which is available for review at the jobsite.

The welds connecting piece B5 to piece P201 on Unit 1 containment pipe rack R0006 were inspected and accepted in accordance with the Appendix VC acceptance criteria (including porosity limitations) established for these welds.

During discussions with the NRC inspector at the jobsite, the possibility of revising Appendix VC to incorporate Category A porosity limits for Category B welds was discussed but was never intended as a commitment. In fact, this action was presented to design engineering for consideration but was not accepted.

Georgia Power Company acknowledges that Pullman Power Products procedure X-18, "Field Welding Inspection," had not been revised to incorporate the Category B porosity inspection requirements of Revision 9 to Appendix VC. Procedure X-18 is being revised to correct this discrepancy. This action is expected to be complete by May 24, 1985.

Violation 50-424, 425/85-08-02, "Lack of Material Control From Instrumentation Satellite Warehouse" - Severity Level IV

This violation identified a failure to provide physical access controls for an instrumentation satellite warehouse laydown area located on the top of the Control Building. Georgia Power Company offers the following response pursuant to the criteria of 10 CFR 2.201:

1. Georgia Power Company acknowledges the violation as identified in the NRC inspection report.
2. When the instrumentation satellite warehouse was established, it was believed that adequate control of all instrumentation material in the laydown area could be maintained without fencing. This belief was based on the fact that the area was clearly designated for instrumentation warehouse material, that the project had established adequate procedures which delineated the methods for requisitioning material from the warehouse, and that personnel were trained to perform their work in accordance with these procedures.
3. The instrumentation satellite storage facility will be moved from its present location. The new storage facility will be provided with appropriate access controls which will include a fenced laydown area with a locking gate.
4. Effective implementation of access controls at the new instrumentation satellite warehouse facility will prevent further violations.

5. The new instrumentation satellite warehouse facility is expected to be completed by June 6, 1985; however, the fenced laydown area will be completed by May 10, 1985. Compliance with applicable regulatory requirements will be achieved with completion of the fenced laydown area.

Violation 50-424, 425/85-08-03, "Failure of Pipe Support Field Installation and Fabrication Procedure to Provide for Control of Welding Quality" - Severity Level IV

This violation identified a failure to establish procedural controls to require fit-up inspection to ensure that the required effective throat is provided for partial penetration groove welds substituted for fillet welds. These controls should have been established in Pullman Power Products Pipe Support Field Installation and Fabrication Procedure IX-50. Georgia Power Company offers the following response pursuant to the criteria of 10 CFR 2.201:

1. Georgia Power Company acknowledges the violation as identified in the NRC inspection report.
2. Fit-up inspections are not normally required for fillet welds performed to AWS code requirements since the critical dimensions of the weld configuration can be verified in the final inspection. Pullman Power Products (PPP) procedure IX-50 allows the substitution of partial penetration groove welds for fillet welds, within tolerances established in the procedure, for structural bracing members provided that the minimum effective throat requirements for the original fillet weld are met. It is the responsibility of PPP hanger engineers to determine if procedural tolerances and effective throat requirements have been met before approving the substitution of a partial penetration groove weld for a fillet weld. However, procedure IX-50 did not require that the weld symbol on the design drawing be changed to reflect the substitution and the weld was still shown as a fillet weld. Substituted partial penetration welds were accepted by QC in final inspections even though adequate effective throat was not verified by QC in a fit-up inspection.
3. Pullman Power Products procedure IX-50 is being revised to provide a mandatory QC hold point at fit-up on the process sheets for welds changed from a fillet weld to a partial penetration groove weld. In addition, the hanger engineer will be required to change the weld symbol on the field drawing to document the substitution of partial penetration groove welds for fillet welds.

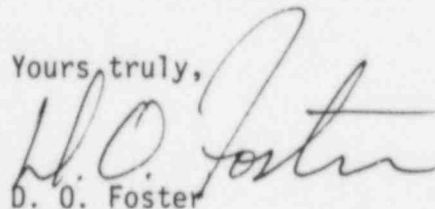
Pending completion of the revisions to procedure IX-50, PPP has issued written directions to all its hanger engineers detailing the procedure revisions and instructing them to implement the changes immediately.

It is Georgia Power Company's position that previous work performed under PPP procedure IX-50 is not impacted by the violation for the following reasons:

- a. Determinations were made by PPP hanger engineers that procedural tolerances and effective throat requirements were met before approving the substitution of partial penetration welds for fillet welds.
 - b. Partial penetration welds are typically superior to fillet welds in quality and strength.
4. Effective implementation of the corrective actions described above will prevent further violations.
 5. The revisions to PPP procedure IX-50 described in Section 3 of this response are expected to be approved and distributed by July 31, 1985. Implementation of the program enhancements prescribed by the revisions has already been achieved.

These responses contain no proprietary information and may be placed in the NRC Public Document Room.

Yours truly,



D. O. Foster

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