



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30323

Report Nos.: 50-424/85-29

Licensee: Georgia Power Company
P. O. Box 4545
Atlanta, GA 30302

Docket No.: 50-424

License No.: CPPR-108

Facility Name: Vogtle 1

Inspection Conducted: July 15-19, 1985

Inspectors:

J. J. Blake
for E. A. Girard

8/1/85
Date Signed

J. J. Blake
for S. A. Vias

8/1/85
Date Signed

J. J. Blake
for G. A. Hallstrom

8/1/85
Date Signed

Approved by:

J. J. Blake
J. J. Blake, Section Chief
Engineering Branch
Division of Reactor Safety

8/1/85
Date Signed

SUMMARY

Scope: This special, announced inspection entailed 111 inspector-hours on site in the area of Readiness Review Module 4, Mechanical Equipment and Piping.

Results: No violations or deviations were identified.

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REPORT DETAILS

1. Persons Contacted

Licensee Employees

*C. Hayes, Quality Assurance (QA), Manager
*R. W. McManus, Readiness Review (RR)
G. McWhorter, RR

Other Organizations

*W. C. Ramsey, Southern Company Services (SCS), Manager RR
*G. F. Trudeau, Bechtel Power Corp. (BPC) - RR
*W. M. Wright, SCS - RR
*C. Meyer, BPC-RR
*R. C. Sommerfeld, BPC - RR
*G. C. Bell, BPC - RR - QA
*B. L. Boherty, BPC - RR
*J. H. Draggs, BPC - RR - QA

NRC Resident Inspectors

W. F. Sanders
J. Rogge
R. Schepens

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on July 19, 1985, with those persons indicated in paragraph 1 above. The inspector described the areas inspected and discussed in detail the inspection findings. No dissenting comments were received from the licensee.

Inspector Followup Item 424/85-29-01, Readiness Review Module 4 Boundaries, paragraph 5.a.

Inspector Followup Item 424/85-29-02, Applicability of Statistical Methods to Readiness Review, paragraph 5.a.

Inspector Followup Item 424/85-29-03, Questions Regarding Module 4 Commitments, paragraph 5.b.

Inspector Followup Item 424/85-29-04, Acknowledgement of Access and Shielding Considerations in Designing for Inservice Inspections and Tests, paragraph 5.a.

The licensee did not identify as proprietary any of the materials provided to or reviewed by the inspectors during this inspection.

3. Licensee Action on Previous Enforcement Matters

This subject was not addressed in the inspection.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Readiness Review Module 4 - Mechanical Equipment and Piping (92700B)

The inspectors began an evaluation of the Mechanical Equipment and Piping review that is being conducted by Georgia Power Company (GPC). The GPC review is being performed to aid in assuring that the Vogtle plant will be operationally ready in accordance with schedule plans for obtaining an operating license. This GPC Readiness Review is intended to specifically assess compliance with the regulatory commitments and requirements (both referred to by GPC and hereafter in this report as commitments) applicable to designing and constructing the plant and readying it for operation. GPC has divided the review into segments or portions which they term modules, to facilitate management of the review. GPC refers to the reports of their module reviews as modules and they will be similarly referred to herein. The portion of the review being evaluated by the inspectors, Mechanical Equipment and Piping, is Module 4 of a planned 20 modules. The inspectors' evaluation of GPC's Module 4 review is intended to assist the NRC in determining whether the GPC Readiness Review provides an adequate identification of the applicable commitments, assessment of commitment implementation, and identification and resolution of review findings requiring corrective action.

Sections 1, 2, 4, 5, and 8 of Module 4 presented the introduction, company organization and division of responsibility, work processes, results of audits and special investigations, and the assessments and conclusions. The more significant aspects of the module are covered by sections 3, 6, and 7. Section 3 lists the commitments that the reviewers identified applicable for the Vogtle plant mechanical equipment and piping covered by Module 4. Section 3 also provides the reviewers' determination of the organization (either design or construction) responsible for commitment implementation and indicates the reviewers' determination as to project documents that have implemented the commitments. Section 6 describes the activities undertaken by the reviewers to ascertain whether the Vogtle plant design and construction work was adequately controlled to assure compliance with the identified commitments. This involved, in a large part, a sampling review of commitment implementation. Section 6 also describes the reviewers' findings and conclusions. Section 7 is to describe an independent design review. The independent design review has not been completed or provided for NRC's evaluation.

The inspectors' evaluation of Module 4 during the inspection described herein involved a general examination of Module 4 and a detailed examination of Module 4, Section 3. Section 6 will be addressed in detail in subsequent NRC inspections. The inspectors general examination of Module 4 and their detailed examination of Module 4, Section 3 is described below.

a. General Examination of Module 4

The inspectors generally examined the entire module to aid in understanding the boundaries of Module 4 and in understanding how the review was accomplished. The module itself stated that it covered ASME Section III mechanical equipment and piping work that was not the responsibility of the Westinghouse Electric Corporation. From information given in Module 4 and discussions with Readiness Review team members it is the inspectors' understanding that onsite activities for which Westinghouse has responsibility will be addressed by Module 16, NSSS (Nuclear Steam Supply System), while the Westinghouse offsite activities will not be addressed in the review. The inspectors found the exact boundaries difficult to ascertain, as some of the hardware procurement and installation in a given system was stated to be the responsibility of Westinghouse while others were not. The inspectors requested that better information on Westinghouse responsibilities be provided to aid in establishing the extent of their evaluation. The review design team leader indicated that additional information would be obtained and provided. The inspectors identified the better establishment of Westinghouse's responsibilities and hence the better establishment of boundaries of Module 4, as Inspector Followup Item 424/85-29-01, Readiness Review Module 4 Boundaries.

In their general examination of Module 4, the inspectors found no mention of any consideration of the use of statistical methods to plan or evaluate the review. The inspectors questioned review personnel regarding this and were informed that there was no use of statistics intended in the review and that they believed the NRC had been so informed. The inspectors indicated that the applicability of statistical methods to the review would be examined further in subsequent evaluation of the Readiness Review and that this would be identified as Inspector Followup Item 424/85-29-02, Applicability of Statistical Methods to the Readiness Review.

During the general review of the module, the inspectors found that the review (Module 4, Section 6.1.3.7, Table 6.1-9) had examined, as part of a selected sample, the procurement specification and vendor submitted drawing for the residual heat removal isolation valve encapsulation vessels. The inspectors noted that the NRC had been previously requested to grant relief from certain ASME Section XI valve inservice tests because of valve access difficulties created by the size and construction of such encapsulation vessels. The test difficulties could result in excessive diversion of personnel and equipment needed for other safety-related work and result in unnecessary radiation exposure. The relief request was described for

the Farley nuclear plant in a letter from Alabama Power Company to the NRC dated November 28, 1983. The inspectors questioned review personnel as to whether such limitations had been taken into account in their review of the design. The inspectors were informed that the reviewers considered only whether tests or inspections could be performed, not whether they would be difficult to perform or whether installation of shielding should be considered to limit personnel exposure. The inspectors informed the reviewers that they considered that this matter should be examined further and identified it as Inspector Followup Item 424/85-29-04, Acknowledgement of Access and Shielding Considerations in Designing for Inservice Inspections and Tests.

b. Examination of Module 4, Section 3

The inspectors examined the adequacy of reviewers' identification of Module 4 commitments and of their verification of implementation of the commitments in project documents. The examination of the identification and assignment of commitments was accomplished by independently selecting a sample (63) of Final Safety Analysis Report (FSAR) and all (13) Inspection and Enforcement Bulletin (IEB) commitments that appeared applicable to Module 4 and then examining Section 3 listings of the commitments to determine if they were included in the review. The commitments selected are identified in Table 1 of this report. Readiness Review team leaders were requested to provide explanations for any omissions noted. Commitments for which further explanations of omissions are required are denoted in Table 1. Twenty-seven of the commitments were examined by the inspectors to verify their inclusion in the project documents identified as implementing the commitments in Module 4, Section 3 listings. These are also denoted in Table 2. In some instances, the implementation could not be verified. These were identified to the review team leaders for resolution. (Table 2 identifies these too.) The inspectors' unresolved questions regarding omitted commitments and commitments whose implementation could not be verified in project documents were identified as Inspector Followup Item 424/85-29-03, Questions Regarding Module 4 commitments. The questions identified to the review team for resolution with respect to this item are as follows:

- (1) The commitment in response to IEB 77-04 was not assigned to Module 4 but rather to dummy Module 21W (for Westinghouse offsite activities not to be addressed in the readiness review). Can you provide documentation verifying that Westinghouse was assigned and has taken responsibility for compliance with this commitment?
- (2) Explain the omissions identified in Table 1.
- (3) Explain the commitment implementations that could not be verified as indicated in Table 2.

TABLE 1

COMMITMENTS EXAMINED FOR PROPER MODULE ASSIGNMENT

<u>Commitment No* or Source</u>	<u>Omitted in Module 4</u>	<u>Omission Requires Further Explanation</u>
145	X	
154		
217	X	X
218	X	X
227	X	X
322		
682		
703	X	X
711		
880		
885		
889		
924		
932	X	X
947		
948		
950		
951		
952		
953		
954		
956		
957		
958		
1509		
1537	X	
1541	X	X
1543		
1558	X	X
1569		
1571		
1578		
1579		
1599		
1611		
1688		
1743		
1744		
1753		

*Commitment No. assigned documented modules.

TABLE 1 (continued)

COMMITMENTS EXAMINED FOR PROPER MODULE ASSIGNMENT

<u>Commitment No* or Source</u>	<u>Omitted in Module 4</u>	<u>Omission Requires Further Explanation</u>
1754		
1764		
1765		
1778		
1779		
1781		
1786		
1787		
1788		
1789		
1832		
1841		
1842		
1855		
1989		
2170		
2346		
2486		
2515		
2809		
2816		
4673		
4674		
4675		
4679		
4890		
4891		
4892		
4916		
4917		
4932		
4933		
IEB-77-04	X	X
IEB-78-04	X	
IEE 79-01B	X	
IEB-80-18	X	X
IEB-81-02	X	

*Commitment No. assigned documented modules.

TABLE 2

VERIFICATION OF IMPLEMENTATION OF COMMITMENTS IN PROJECT DOCUMENTS

<u>Commitment No.</u>	<u>Implementation Could Not Be Verified</u>
322	
924	
948	X
950	
951	
952	
953	
954	
955	
956	
957	
958	X
1509	
1688	X
1743	
1744	X
1753	
1764	X
1765	X
1778	
1779	X
1781	
1786	X
2816	
4916	
4917	
4933	