

UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, 9.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

OF THE FIRST TEN YEAR INTERVAL INSERVICE INSPECTION PROGRAM PLAN. REVISION 6

AND ASSOCIATED REQUESTS FOR RELIEF

FOR

GEORGIA POWER COMPANY, ET AL.

VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2

DOCKET NOS: 50-424 AND 50-425

1.0 INTRODUCTION

The Technical Specifications for Vogtie Electric Generating Plant. Units 1 and 2. state that the inservice inspection of the American Society of Mechanical Engineers (ASME) Code Class 1, 2, and 3 components shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by Title 10 of the Code of Federal Regulations (10 CFR) 50.55a(g), except where specific written relief has been granted by the Commission pursuant to 10 CFR 50.55a(g)(6)(i).

Pursuant to 10 CFR 50.55a(g)(4), ASME Code Class 1, 2, and 3 components (including supports) shall meet the requirements, except the design and access provisions and the preservice examination requirements, set forth in the ASME Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," to the extent practical within the limitations of design, geometry, and materials of construction of the components. The regulations require that inservice examination of components and system pressure tests conducted during the first 10-year interval and subsequent intervals comply with the requirements in the latest edition and addenda of Section XI of the ASME Code incorporated by reference in 10 CFR 50.55a(b) on the date 12 months prior to the start of the 120-month interval, subject to the limitations and modifications listed therein. The applicable edition of Section XI of the ASME Code for the Vogtle Electric Generating Plant, Units 1 and 2, first 10year inservice inspection (ISI) interval is the 1983 Edition through Summer 1983 Addendar. The components (including supports) may meet the requirements set forth in subsequent editions and addenda of the ASME Code incorporated by reference in 10 CFR 50.55a(b) subject to the limitations and modifications listed therein and subject to Commission approval.

Pursuant to 10 CFR 50.55a(g)(5), if the licensee determines that conformance with an examination requirement of Section XI of the ASME Code is not practical for its facility, information shall be submitted to the Commission in support of that determination and a request made for relief from the ASME Code requirement. After evaluation of the determination, pursuant to 10 CFR 50.55a(g)(6)(i), the Commission may grant relief and may impose

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alternative requirements that are determined to be authorized by law, will not endanger life, property, or the common defense and security, and are otherwise in the public interest, giving due consideration to the burden upon the licensee that could result if the requirements were imposed.

Section 10 CFR 50.55a(a)(3) states that alternatives to the requirements of paragraph (g) may be used, when authorized by the NRC, if (i) the proposed alternatives would provide an acceptable level of quality and safety or (ii) compliance with the specified requirements would result in hardship or unusual difficulties without a compensating increase in the level of quality and safety.

In a letter dated March 2, 1994, Georgia Power Company (the licensee) submitted to the NRC its First Ten-Year Interval Inservice Inspection Program Plan, Revision 6, and associated Requests for Relief for the Vogtle Electric Generating Plant, Units 1 and 2.

2.0 EVALUATION AND CONCLUSIONS

The staff, with technical assistance from its contractor, the Idaho National Engineering Laboratory (INEL), has evaluated the information provided by the licensee in support of its First Ten-Year Interval Inservice Inspection Program Plan, Revision 6, and associated requests for relief for Vogtle Electric Generating Plant, Units 1 and 2. Based on the information submitted, the staff adopts the contractor's conclusions and recommendations presented in the attached Technical Evaluation Letter Report. No deviations from regulatory requirements or commitments were identified for the Vogtle Electric Generating Plant, Units 1 and 2, First Ten-Year Interval Inservice Inspection Program Plan, Revision 6.

Request for Relief No. RR-29 was previously granted in NRC Safety Evaluation dated December 17, 1991. The licensee resubmitted RR-29 with weld 21201-86-004-W26 added but no other changes were made to this relief request. Request for Relief No. RR-29 remains granted pursuant to 10 CFR 50.55a(g)(6)(i). Request for Relief No. RR-49 is granted as requested pursuant to 10 CFR 50.55a(g)(6)(i). For each relief granted, the staff has determined that the requirements of the Code are impractical and compliance with the Code would require modifications for replacement of components. The relief granted is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest giving due consideration to the burdeen upon the licensee that could result if the requirements were imposed on the facility.

Principal Contributor: T. McLellan

Date: February 9, 1995

TECHNICAL EVALUATION LETTER REPORT ON THE FIRST TEN-YEAR INTERVAL INSERVICE INSPECTION PROGRAM. REVISION 6 FOR GEORGIA POWER COMPANY. ET AL. VOGTLE ELECTRIC GENERATING PLANT. UNITS 1 AND 2 DOCKET NUMBERS: 50-424 and 50-425

1.0 INTRODUCTION

By letter dated March 2, 1994, the licensee, Georgia Power Company, submitted Revision 6 to the Vogtle Electric Generating Plant, Units 1 and 2, First 10-Year Interval Inservice Inspection Program, which began May 20, 1989. The applicable edition of ASME Section XI for the first 10-year interval is the 1983 Edition through Summer 1983 Addenda. The Idaho National Engineering Laboratory (INEL) staff has evaluated the subject revision in the following sections.

2.0 EVALUATION

The staff has evaluated the Vogtle Electric Generating Plant, Unit 2, First 10-Year Interval Inservice Inspection Program, Revision 6. Included are requests for relief from certain ASME Code requirements determined to be impractical for the Vogtle Electric Generating Station during the first 10year interval, and additional information related to the Program Plan.

A. <u>General Program Comments (Units 1 and 2)</u>: The licensee has deleted the Line Designation list and the Equipment Designation List from the Program. This was done to reduce unnecessary duplication as the lists are contained in the Inservice Inspection Plan documents. Several minor editorial changes for clarification and correction of typographical errors have also been made. These changes do not affect the technical content of the program. The subject changes have been acknowledged.

B. <u>Request for Relief RR-29. (Revision 1). Examination Categories C-A.</u> <u>Class 2 Vessel Welds. and C-B. Class 2 Nozzle Welds in Vessels</u> <u>(Unit 2 only)</u>

Note: Revision 0 of this request for relief was previously evaluated and granted in a NRC Safety Evaluation Report dated December 17, 1991. Revision 1 of this request for relief adds the component listed below.

Exam Cat/	Weld ID	%	Description of
Item No.		Completed	Limitation
C-B/C2.21	21201-B6-004-W26	67	Inaccessibility from the nozzle side

Since the technical findings of the December 17, 1991, Safety Evaluation are applicable to this additional weld relief for the resubmitted request remains granted pursuant to 10 CFR 50.55a(g)(6)(i), based on the previous evaluation.

C. <u>Request for Relief RR-49. (Revision 1): Examination Category D-A.</u> <u>Item D1.10. Pressure Testing Pressure-Retaining Components in Systems in</u> <u>Support of Reactor Shutdown Function (Units 1 and 2)</u>

<u>Code Requirement</u>: Section XI, Table IWD-2500-1, Examination Category D-A, Item D1.10 requires a VT-2 visual examination during system hydrostatic and system inservice testing of Class 3 components in support of reactor shutdown function.

Licensee's Code Relief Request: The licensee requested relief from performing the Code-required hydrostatic pressure test and the VT-2 visual examination during the system inservice test. The components for which relief is required include 1) the Class 3 vertical pit type pumps and associated piping to the discharge check valve, and 2) the Train A and B interties from Isolation Valve 1-1202-U4-492 to Check Valve 1-1202-U4-495 and from Isolation Valve 1-1202-U4-497 to Check Valve1-1202-U4-493. The following nuclear service cooling water (NSCW) pumps and transfer pumps are included in this request for relief:

1-1202-P4-005
1-1202-P4-006
1-1202-P4-007
1-1202-P4-008

Licensee's Basis for Requesting Relief (as stated):

"The NSCW pumps and transfer pumps are vertical pit type pumps which take suction from the NSCW tower basins. Since these pumps are vertical pit type pumps, there are no isolation valves on the suction side of the pumps to facilitate hydrostatic testing. Therefore, the performance of a hydrostatic test on the pumps and the piping to the first discharge shutoff valve is impractical. In addition the performance of a VT-2 visual examination during system inservice testing is also impractical on the suction side portion of these pumps because they are submerged in the NSCW tower basin.

"Performance of a hydrostatic test on the piping between the first discharge isolation valves downstream of the NSCW pumps and the downstream discharge check valves is impractical because no intermediate test corrections are present to attach test equipment. To remove the check valve internals to facilitate hydrostatic testing is not prudent due to time constraints associated with disassembling and reassembling the check valves and restoring the NSCW system to service.

"Similarly, portions of the "NSCW keep full system" are isolated from the remainder of applicable NSCW train by check valves with no intermediate test connections. The "NSCW keep full system" is designed to maintain the idle train of NSCW pressurized and full of water by the use of an intertie from the operating train. To remove the check valve internals to facilitate hydrostatic testing is not prudent due to time constraints associated with disassembling the check valves and restoring the NSCW system to service."

Licensee's Proposed Alternative Examination (as stated):

"None. These pumps are periodically tested as required by Subsection IWP. These tests verify operability of the pumps and, by doing so, would detect significant leakages through the pressure retaining boundary. A VT-2 visual examination will be performed each inspection period during system inservice testing of portions of the pumps which are not submerged in the NSCW tower basin.

"Intertie piping sections will be VT-2 examined each inspection period during system inservice testing of NSCW pumps." Evaluation: The Code requires VT-2 visual examination in conjunction with a system inservice test each period and with a hydrostatic test each interval on the subject portions of this Class 3 system.

In lieu of the Code-required hydrostatic test, the licensee has proposed a VT-2 visual examination, for those areas not submerged, during an inservice system test each period. The pressure test will be performed in accordance with IWD-5000.

There are no isolation valves on the suction side of the NSCW pumps, without which a hydrostatic test of the pumps cannot be performed. Likewise, the performance of a VT-2 visual examination for evidence of leakage from the submerged section of the NSCW pump suction is not possible. In addition, there are no test connections between the NSCW pump discharge isolation valves and the discharge check valves, or between the intertie isolation valves and check valves. Therefore, hydrostatic testing of the above mentioned areas is impractical. To perform the Code-required pressure test, the subject systems would require design modifications.

A VT-2 visual examination, for those areas not submerged, during an inservice system test each period should provide reasonable assurance of operational readiness. Imposition of the Code requirement would cause a considerable burden on the licensee. Therefore, pursuant to 10 CFR 50.55a(g)(6)(i), it is recommended that relief be granted as requested.

3.0 CONCLUSION

The INEL staff has reviewed the licensee's submittal of Vogtle Electric Generating Plant, Unit 2, First 10-Year Interval Inservice Inspection Program, through Revision 6, and has concluded that Requests for Relief RR-29 and RR-49 can remain granted, or be granted as applicable.

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Based on the evaluation contained in the previous section of this report, no deviations from regulatory requirements or commitments were identified for the Vogtle Electric Generating Plant, Unit 2, First 10-Year Interval Inservice Inspection Program, through Revision 6.