



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

REGARDING REVISION 5 TO THE FIRST TEN-YEAR

INTERVAL INSERVICE INSPECTION PROGRAM

FOR

VOGTLE ELECTRIC GENERATING PLANT, UNIT NO. 1

DOCKET NUMBER 50-424

1.0 INTRODUCTION

Technical Specification 4.0.5 for Vogtle Electric Generating Plant, Unit 1, states that the inservice inspection and testing 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 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). Under 10 CFR 50.55a(a)(3), 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.

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 ten-year interval 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 issuance of the operating license, subject to the limitations and modifications listed therein. The applicable edition of Section XI of the ASME Code for the Vogtle Electric Generating Plant, Unit 1, first 10-year ISI interval is the 1983 Edition through Summer 1983 Addenda. 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. The first interval for Vogtle Unit 1 began June 1, 1987, and ends June 1, 1997.

Pursuant to 10 CFR 50.55a(g)(5), if a 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 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.

The licensee, Georgia Power Company, submitted Revision 5 to the Vogtle Electric Generating Plant, Unit 1, First 10-Year Interval ISI Program, in a letter dated October 2, 1991. The ISI Program for Unit 1 through Revision 4 has previously been evaluated and accepted in an NRC Safety Evaluation Report (SER) dated November 26, 1991. In the SER of November 26, 1991, the NRC staff also acknowledged that by Revision 5, the licensee had withdrawn Relief Requests (RR)-1, RR-24, and RR-51. Therefore, in this review the NRC staff now evaluates the remainder of Revision 5.

The NRC staff has evaluated the Vogtle Electric Generating Plant, Unit 1, First 10-Year Interval ISI Program, Revision 5, with technical assistance from its contractor, the Idaho National Engineering Laboratory.

2.0 EVALUATION

Most of the changes to the ISI Program found in Revision 5 consist of editorial corrections to text. The remaining changes apply to specific requests for relief. The information provided by the licensee in support of the requests for relief from impractical requirements has been evaluated and the bases for granting relief from those requirements are documented below.

A. RR-21, Examination Category B-J, Class 1 Branch Connection Welds 4 Inch and Larger Nominal Pipe Size

In its SER of November 26, 1991, and accompanying Technical Evaluation Report (TER at Section 3.1.4.2), the NRC staff granted RR-21 which had requested relief from examining 100% of the Code-required volume of eleven specific Class 1 branch pipe connection welds. The licensee revised RR-21 in Revision 5 to reflect the actual examination volumes completed and the receipt of new calibration blocks. Review of the "set-in" and "set-on" designs shows that the branch connections cannot be examined to the extent required by the Code. The licensee has committed to perform the volumetric examinations to the maximum extent practical, in addition to performing the Code-required surface examinations.

The NRC staff finds that these examinations will provide reasonable assurance of the continued inservice structural integrity of the branch connection welds. Therefore, the NRC staff's previous basis for

granting this relief request remains valid as reported November 26, 1991, and the request, as modified, is granted in accordance with 10 CFR 50.55a(g)(6)(i).

B. RR-26, Examination Categories B-J and C-F, Pressure Retaining Welds in Class 1 and 2 Piping

In its SER of November 26, 1991, the NRC staff accepted RR-26 which requested relief from examining 100% of the Code-required volume of certain welds (see Sections 3.1.4.1 and 3.2.2.1 of the accompanying TER for Unit 1). The changes to RR-26, as modified by Revision 5, are of an editor nature and do not change the technical content. The changes are made to be similar in content to RR-26 in the ISI Program for Unit 2 (which was accepted by the NRC staff December 17, 1991; see Sections 3.1.4.1 and 3.2.2.1 of the accompanying TER for Unit 2). Therefore, the NRC staff's previous basis for granting this relief remains valid, and the request, as modified, is granted in accordance with 10 CFR 50.55a(g)(6)(i).

C. RR-31, Use of Piping Calibration Blocks to Examine Thin-Wall Vessels

In its SER of November 26, 1991, the NRC staff granted RR-31 which had requested the modification of the Section V, Article 5 requirement to allow the use of Section XI, Appendix III for examination of certain Class 2 thin-wall vessels. RR-31 was revised in Revision 5 to add the discharge pulsation damper (Tag No. 11208-V4-002) to the list of affected thin-wall vessels. The "Basis For Relief" has been updated by Revision 5 to allow for the use of a flat calibration block in accordance with ASME Section V, Article 5, Paragraphs T-543.3.1 and -.2.

These additions are similar in content to Relief Request RR-31 in the ISI Program for Vogtle Unit 2 as accepted by the NRC staff December 17, 1991 (see Section 3.2.1.3 of the accompanying TER for Unit 2 in which the NRC staff concluded that the licensee's proposed alternative examination method is technically justified as being equivalent or superior to the examination methods specified by the Code). The additions for Unit 1 do not change the technical content or the justification used for the NRC staff's previous evaluation for Unit 2. The thin-wall vessels (and their associated systems) within the scope of RR-31 are of identical design for Unit 1 and Unit 2. Therefore, the relief request, as modified in Revision 5 of the ISI Program, is authorized in accordance with 10 CFR 50.55a(a)(3)(i).

D. Requests for Relief Nos. RR-17 and RR-52

In its SER of November 26, 1991, and accompanying TER, Section 3.1.4.1, the NRC staff granted RR-17 which requested relief from examining 100% of the Code-requested volume of certain Class 1 circumferential piping welds. Relief Request RR-17 was revised in Revision 5 to correct an elbow size in the component description from 29" to 31".

In its SER of November 26, 1991, and accompanying TER, Section 3.1.1.6, the NRC staff granted RR-52 which requested relief from examining 100% of the Code-required area of certain integrally welded attachments. RR-52 was revised in Revision 5 to correct a typographical error.

These corrections do not affect the basis for the NRC staff's previous approvals. Therefore, the relief requests, as corrected in Revision 5, are granted in accordance with 10 CFR 50.55a(g)(6)(i).

3.0 CONCLUSION

Most of the changes in Revisions 5 of the ISI Program for Vogtle Electric Generating Plant, Unit 1, are editorial in nature. We have determined that imposing the applicable provisions of Section XI of the ASME Code would be impractical. Moreover, the requested relief, as modified, is authorized by law and will not endanger the common defense and security and is otherwise in the public interest given due consideration to the burden upon the licensee that could result if the requirements were imposed on the facility. Therefore, these relief requests are granted pursuant to 10 CFR 50.55a(g)(6)(i).

In Revision 5, RR-31 is updated to reflect actual plant conditions and to configure the Unit 1 Program similar to the Unit 2 Program as accepted by the NRC staff. For RR-31, you have proposed alternative examinations and we have determined that the proposed alternatives would provide an acceptable level of quality and safety. Therefore, RR-31 is authorized pursuant to 10 CFR 50.55a(a)(3)(i).

Accordingly, the NRC staff has determined that the Vogtle Electric Generating Plant, Unit 1, First 10-Year Interval ISI Program, through Revision 5, reflects compliance with 10 CFR 50.55a(g) and Technical Specification 4.0.5 and, therefore, continues to be acceptable.

Date: January 6, 1993