

November 19, 2001

Mr. H. L. Sumner, Jr.  
Vice President - Nuclear  
Hatch Project  
Southern Nuclear Operating  
Company, Inc.  
Post Office Box 1295  
Birmingham, Alabama 35201-1295

SUBJECT: EVALUATION OF RELIEF REQUEST RR-MC-10 FOR THE CONTAINMENT  
INSERVICE INSPECTION PROGRAM FOR EDWIN I. HATCH NUCLEAR  
PLANT UNITS 1 AND 2 (TAC NOS. MB3201 AND MB3202)

Dear Mr. Sumner:

In a letter dated October 19, 2001, Southern Nuclear Operating Company, Inc., licensee for the Edwin I. Hatch Nuclear Plant, Units 1 and 2, submitted Request for Relief No. RR-MC-10 for the containment inservice inspection program. The staff reviewed the proposed alternative examination against the requirements of the American Society of Mechanical Engineers *Boiler and Pressure Vessel Code*, Section XI, 1992 Edition through the 1992 Addenda of Subsection IWE pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.55a.

The results of the review are provided in the enclosed Safety Evaluation. The alternative to the Code requirements proposed in RR-MC-10 provides an acceptable level of quality and safety and may be authorized pursuant to 10 CFR 50.55a(a)(3)(i) for the first 10-year interval of the containment inspection program.

By telephone call on October 19, 2001, the staff granted verbal approval of this relief request.

Sincerely,

**/RA/**

Richard J. Laufer, Acting Chief, Section 1  
Project Directorate II  
Division of Project Licensing Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-321 and 50-366

Enclosure: As stated

cc w/encl: See next page

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO THE CONTAINMENT INSERVICE INSPECTION PROGRAM  
SOUTHERN NUCLEAR OPERATING COMPANY  
EDWIN I. HATCH NUCLEAR PLANT, UNITS 1 AND 2  
DOCKET NOS. 50-321 AND 50-366

## 1.0 INTRODUCTION

In the Federal Register dated August 8, 1996, the Commission amended the Code of Federal Regulations, 10 CFR 50.55a, to incorporate by reference Section XI of the American Society of Mechanical Engineers (ASME) *Boiler and Pressure Vessel Code* (the Code), 1992 Edition through the 1992 Addenda of Subsections IWE and IWL. Subsection IWE provides the requirements for inservice inspection (ISI) of Class MC (metallic containment) components and the metallic liners of Class CC (concrete containment) components. Subsection IWL provides the requirements for ISI of Class CC components.

The regulations require that ISI of certain Code Class MC and CC components be performed in accordance with Section XI of the ASME Code and applicable addenda, except where alternatives have been authorized or relief has been requested by the licensee and granted by the Commission pursuant to paragraphs (a)(3)(i), (a)(3)(ii), or (g)(6)(i) of 10 CFR 50.55a. In proposing alternatives or requesting relief, the licensee must demonstrate that (1) the proposed alternatives provide an acceptable level of quality and safety; (2) compliance would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety; or (3) conformance is impractical for its facility.

By letter dated October 19, 2001, Southern Nuclear Operating Company, Inc., the licensee, submitted Request for Relief No. RR-MC-10 for the containment inservice inspection program for the Edwin I. Hatch Nuclear Plant, Units 1 and 2. The NRC staff's findings with respect to authorizing the alternative or denying the proposed relief request are given below.

## 2.0 RELIEF REQUEST RR-MC-10

The licensee requests relief from the requirements of paragraph IWE-5240 of the ASME Code, Section XI. Instead of performing a VT-2 examination following repair, replacement or modification, the licensee proposes to perform an Appendix J test as well as a VT-1 examination of the repaired or replaced areas.

Enclosure

## 2.1 Licensee's Basis for Requesting Relief

The licensee states:

10 CFR 50.55a was amended in the Federal Register (61FR41303) to require the use of the 1992 Edition, 1992 Addenda, of Section XI when performing containment examinations. Paragraph IWE-5210 states that except as noted within Paragraph IWE-5240, the requirements of Article IWA-5000 are not applicable to Class MC or Class CC components. Paragraph IWE-5240 states that the requirements of Paragraph IWA-5240 (corrected from IWA-5246 to IWA-5240 in the 1993 Addenda) for visual examinations are applicable. Paragraph IWA-5240 identifies a "VT-2" visual examination. VT-2 examinations are conducted to detect evidence of leakage from pressure retaining components, with or without leakage collection systems, as required during the conduct of a system pressure test. In addition, personnel performing VT-2 examinations are required to be qualified in accordance with Subarticle IWA-2300 of ASME Section XI.

Table IWE-2500-1, Examination Category E-P, identifies the examination method of 10 CFR 50, Appendix J and does not specifically identify a VT-2 visual examination. 10 CFR 50, Appendix J provides requirements for testing as well as acceptable leakage criteria. These tests are performed by Appendix J "Test" personnel and utilize calibrated equipment to determine acceptability. Additionally, 10 CFR 50.55a(b)(2)(x)(E) requires a general visual examination of the containment each period that would identify any structural degradation that may contribute to leakage. A "VT-2" visual examination will not provide additional assurance of safety beyond that of current Appendix J practices.

Relief is requested in accordance with 10 CFR 50.[.]55a(a)(3)(i). Pressure testing in accordance with 10 CFR 50, Appendix J, provides an adequate level of quality.

## 2.2 Alternative Examination

The licensee proposes:

Testing shall be conducted in accordance with 10 CFR 50, Appendix J, in lieu of Paragraph IWE-5240 of ASME Section XI as well as performing an IWE detailed visual examination of the repaired or replaced area (VT-1).

## 2.3 Evaluation

Subsection IWE, paragraph IWE-5240 states that the requirements of paragraph IWA-5240 for visual examination, VT-2, are applicable following repair, replacement, or modification. The licensee has requested relief from performing the VT-2 visual examination. As an alternative, the licensee proposes to perform leak testing in accordance with 10 CFR Part 50, Appendix J and an IWE detailed visual examination of the repaired or replaced areas (VT-1).

Repairs, replacements, or modifications which are performed under ASME Section XI rules are subject to the requirements of the applicable construction code. Both the construction code and Section XI require nondestructive examination (NDE) of the repaired or replaced areas

before being brought back into service. These construction code and Section XI pre-service NDE requirements provide reasonable assurance that the repairs, replacements, or modifications are performed in a sound manner and ensure the leak-tight integrity of the containment pressure boundary.

The testing requirements of 10 CFR Part 50, Appendix J provide acceptance criteria for leakage. In addition, Appendix J testing is performed by qualified personnel using calibrated equipment. Moreover, 10 CFR 50.55a(b)(2)(x)(E) requires a general visual examination of the containment each period to identify any structural degradation which may contribute to leakage.

For these reasons, the licensee's proposed alternative, together with the NDE performed following repair, replacement, or modification, provides reasonable assurance of containment leak-tight integrity.

### 3.0 CONCLUSION

The licensee's proposed alternative to the requirements of IWE-5240 is authorized pursuant to 10 CFR 50.55a(a)(3)(i) for the first 10-year interval of the Containment Inspection Program. This alternative examination provides an acceptable level of quality and safety.

Principal Contributor: M. Kotzalas

Date: November 19, 2001

Edwin I. Hatch Nuclear Plant

cc:

Mr. Ernest L. Blake, Jr.  
Shaw, Pittman, Potts  
and Trowbridge  
2300 N Street, NW.  
Washington, DC 20037

Mr. D. M. Crowe  
Manager, Licensing  
Southern Nuclear Operating  
Company, Inc.  
P. O. Box 1295  
Birmingham, Alabama 35201-1295

Resident Inspector  
Plant Hatch  
11030 Hatch Parkway N.  
Baxley, Georgia 31531

Mr. Charles H. Badger  
Office of Planning and Budget  
Room 610  
270 Washington Street, SW.  
Atlanta, Georgia 30334

Harold Reheis, Director  
Department of Natural Resources  
205 Butler Street, SE., Suite 1252  
Atlanta, Georgia 30334

Steven M. Jackson  
Senior Engineer - Power Supply  
Municipal Electric Authority  
of Georgia  
1470 Riveredge Parkway, NW  
Atlanta, Georgia 30328-4684

Charles A. Patrizia, Esquire  
Paul, Hastings, Janofsky & Walker  
10th Floor  
1299 Pennsylvania Avenue  
Washington, DC 20004-9500

Chairman  
Appling County Commissioners  
County Courthouse  
Baxley, Georgia 31513

Mr. J. D. Woodard  
Executive Vice President  
Southern Nuclear Operating  
Company, Inc.  
P. O. Box 1295  
Birmingham, Alabama 35201-1295

Mr. P. W. Wells  
General Manager, Edwin I. Hatch  
Nuclear Plant  
Southern Nuclear Operating  
Company, Inc.  
U.S. Highway 1 North  
P. O. Box 2010  
Baxley, Georgia 31515

Mr. L. M. Bergen  
Resident Manager  
Oglethorpe Power Corporation  
Edwin I. Hatch Nuclear Plant  
P. O. Box 2010  
Baxley, Georgia 31515