



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELIEF REQUEST 2RG-008 RELATED TO SNUBBER REQUIREMENTS

CAROLINA POWER & LIGHT COMPANY

SHEARON HARRIS NUCLEAR POWER PLANT

DOCKET NO. 50-400

1.0 INTRODUCTION

The Technical Specifications (TS) for the Shearon Harris Nuclear Power Plant (HNP) state that the inservice inspection (ISI) of the American Society of Mechanical Engineers (ASME) Code Class 1, 2, and 3 components will be performed in accordance with Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," of the ASME Boiler and Pressure Vessel Code (ASME Code) and applicable addenda as required by Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.55a(g), except where specific written relief has been granted by the Commission pursuant to 10 CFR 50.55a(g)(6)(i). Section 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 difficulty 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) will meet the requirements, except the design and access provisions and the preservice examination requirements, set forth in the ASME Code, Section XI, 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) 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 Harris's 2nd 10-year ISI interval is the 1989 Edition.

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 will be submitted to the Commission in support of that determination and a request must be 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/or 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.

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By letter dated January 27, 1998, as supplemented on August 24, 1998, and April 27, 1999, Carolina Power & Light Company (CP&L), the HNP licensee, requested relief from the requirements of ASME Code Section XI, 1989 Edition, Article IWF-5300, with regard to visual examination and functional testing of hydraulic and mechanical snubbers. Article IWF-5300 references the first addenda to ASME/ANSI OM-1987, Part 4 (OM-4) for such snubber activities. The licensee requested the use of the HNP TS requirements for snubber visual examination and functional testing, pursuant to 10 CFR 50.55a(a)(3)(ii).

## 2.0 BASIS FOR RELIEF

Pursuant to 10 CFR 50.55a(a)(3)(ii), the licensee requested a relief from the requirements of ASME Code Section XI, 1989 Edition, on the basis that compliance with the original examination requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

The plant TS and the OM-4 Code, referenced by ASME Code Section XI, are essentially identical in their intent to inspect Class 1, 2, and 3 snubbers. The TS, however, extend the scope of snubber inspection to include all Seismic Category I snubbers not classified as Class 1, 2, or 3. The ASME requirements are contained in the TS. The licensee stated that having two separate snubber ISI programs places an unnecessary burden upon the plant without any increase in plant safety.

## 3.0 EVALUATION

HNP TS 4.7.8 states that snubbers shall be demonstrated operable by performance of the augmented ISI program specified in the TS Equipment List Program, plant procedure PLP-106. Relocation of the specific snubber requirements to PLP-106 was approved by the NRC in HNP License Amendment No. 25 issued on March 26, 1991. The snubber requirements are also duplicated in the Final Safety Analysis Report (FSAR) Table 16.3.4. Provisions of Table 16.3-4 are essentially the same as Article IWF-5300 except for the schedule for inservice examination of snubbers as described in OM-1987, Part 4, Paragraph 3.2.3(b). OM-1987, Part 4 requires all snubbers to be visually examined every 18 months. Table 16.3-4 incorporates the provisions of NRC Generic Letter (GL) 90-09, "Alternative Requirements for Snubber Visual Inspection Intervals and Corrective Actions," dated December 11, 1990, and allows the frequency of snubber examinations to be extended up to every 48 months, contingent upon the results of examinations.

The staff has reviewed the licensee's submittal pertaining to the relief request from the requirements of the ASME Code for visual examination and functional testing of snubbers. The licensee's plant procedure PLP-106, which governs the snubber surveillance activities, is unchanged from that which was previously approved for use in a similar relief request for the first 10-year interval. The licensee states that the proposed alternative provides a level of quality and safety equivalent to the requirements of Article IWF-5300 of ASME Code Section XI, 1989 Edition.

In response to the staff's request during a conference call conducted on April 8, 1999, the licensee submitted a revision to the relief request on April 27, 1999. The revision stipulated that



inservice examination of Class 1, 2, and 3 snubbers will be performed using the VT-3 visual examination method described in ASME Code Section XI, Paragraph IWA-2213. In addition, the revision provided clarification that the HNP snubber repair and replacement program will be performed in accordance with the provisions of ASME Code Section XI, Articles IWF 4000 and IWF 7000.

Based on its review, the staff finds that the use of the HNP TS, which reference plant procedure PLP-106 for snubber surveillance activities, will continue to provide a reasonable assurance that snubbers will function and protect the structural integrity of the safety-related systems and components.

#### 4.0 CONCLUSION

Based on the information provided, the staff has determined that the licensee has presented an adequate justification for the relief request from the requirements of ASME Code 1989 Edition, Section XI, Article IWF-5300 (which references OMa-1987, Part 4), with regard to visual examination and functional testing of snubbers. The staff has determined that compliance with the original examination requirements would result in hardship or unusual difficulty for the licensee without a compensating increase in the level of quality and safety. Therefore, the licensee's relief request 2RG-008 is authorized, pursuant to 10 CFR 50.55a(a)(3)(ii), for the second 10-year interval of the HNP ISI program.

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