Progress Energy

OCT 1 0 2008

10 CFR 50.55a(a)(3)(ii)

SERIAL: BSEP 08-0140

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Subject: Brunswick Steam Electric Plant, Unit Nos. 1and 2
Docket Nos. 50-325 and 50-324/License Nos. DPR-71 and DPR-62
Proposed Alternative for Reactor Vessel Skirt Support Examinations

Ladies and Gentlemen:

In accordance with 10 CFR 50.55a(a)(3)(ii), Carolina Power & Light Company (CP&L), now doing business as Progress Energy Carolinas, Inc., is requesting approval of a 10 CFR 50.55a request for the fourth 10-year Inservice Inspection Program. The proposed alternative, which has been designated as Relief Request ISI-04, pertains to American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, requirements for examinations of the reactor pressure vessel skirt support. CP&L requests approval of by October 1, 2009.

No regulatory commitments are provided in this letter. Please refer any questions regarding this submittal to Mr. Gene Atkinson, Supervisor - Licensing/Regulatory Programs, at (910) 457-2056.

Sincerely,

Phyllis N. Mentel

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A047
NRR

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Enclosure: 10 CFR 50.55a Request Number ISI-04

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10 CFR 50.55a Request Number ISI-04

Proposed Alternative In Accordance with 10 CFR 50.55a(a)(3)(ii)

- Hardship or Unusual Difficulty
Without Compensating Increase in Level of Quality and Safety -

1. ASME Component Affected

Code Class:	Class 1
Category:	F-A, Supports
Systems:	Not Applicable
Affected Components:	Reactor Pressure Vessel

2. Applicable Code Edition and Addenda

The Code of Record for the fourth 10-year inservice inspection interval at the Brunswick Steam Electric Plant (BSEP), Units 1 and 2, is the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, 2001 Edition with 2003 Addenda.

The fourth 10-year inservice inspection interval began on May 11, 2008, and will conclude on May 10, 2018.

3. Applicable Code Requirements

Paragraph IWF-2520 requires that the method of examination is to comply with those specified in Table IWF-2500-1. Item F1.40 of Table IWF-2500-1 requires a visual (VT-3) examination of supports other than piping supports. The interior and exterior surfaces of the reactor pressure vessel (RPV) skirt support are subject to the examination requirements of Table IWF-2500-1, Item F1.40.

4. Reason for Request

A visual (i.e., VT-3) examination of the interior surfaces of the RPV skirt support constitutes a hardship without a compensating increase in quality and safety.

5. Proposed Alternative

During the fourth inspection interval, Carolina Power and Light (CP&L) proposes no alternative examination of the RPV skirt support's interior surfaces. A visual (i.e., VT-3) examination will be performed of the RPV skirt support's exterior surfaces as specified by Table IWF-2500-1, Item F1.40.

6. Basis for Use

For the fourth inspection interval, CP&L is requesting approval to not perform the VT-3 examination on the interior surfaces of the RPV skirt support. CP&L has evaluated not performing this visual examination and determined that implementation of the proposed alternative will provide an acceptable level of quality and safety for the following reasons:

1. The design bases failure mode of the RPV skirt support is buckling caused by primary bending compressive stress. After forming, the material had ample ductility and is expected to exhibit significant plastic deformation prior to fracture. For these reasons, any potential service-induced damage would be evident during the VT-3 examination of the exterior surfaces. Thus, the VT-3 examination of the exterior surfaces will provide assurance of the continued structural integrity of the RPV skirt support.

2. Because of personnel radiation exposure, performing a VT-3 examination of the interior surfaces of the RPV skirt support constitutes a hardship to BSEP Units 1 and 2 without a compensating increase in quality and safety. In order to examine the interior surface of the RPV skirt support, removal of the existing insulation would be required. Removal of the insulation would require disassembly, by either unscrewing each piece of the insulation or by cutting, and would result in permanent damage to the insulation. In addition, the removed insulation could not be stored in the skirt support area because of the limited space between the control rod drives and the skirt support area. Removal of the insulation, to a location outside of the skirt support area, could cause additional damage due to the skirt's access opening. The access opening to the skirt support area is 18 inches in diameter, and the insulation sections are approximately 20 inches by 30-5/8 inches

in size. For this reason, installation of a new insulation package would be required, which could result in additional time under vessel.

The activities associated with the removal and reinstallation of insulation would result in a significant hardship to CP&L in regards radiation exposure of the involved personnel. A radiation exposure of 1.4 rem per unit has been estimated for this removal and reinstallation activity.

7. Duration of the Proposed Alternative

Use of the alternative is proposed for the fourth 10-year inservice inspection interval that began on May 11, 2008, and will conclude on May 10, 2018.

8. Precedencts

Not performing the VT-3 examination on the interior surfaces of the RPV skirt support has been previously approved by the NRC for implementation at BSEP during the second and third inspection intervals (i.e., References 3 and 4, respectively). The basis for requesting this relief, which was evaluated by the NRC for use during these previous inspection intervals, has not change.

9. References

1. Title 10 of the Code of Federal Regulations, Part 50, Section 55a, "Codes and standards."

2. ASME Code, Section XI, *Rules for Inservice Inspection of Nuclear Power Plant Components*, 1992 Edition with the 1992 Addenda, 2001 Edition with 2003 Addenda.

3. Letter from NRC to CP&L, dated January 25, 1996, "Relief from American Society of Mechanical Engineers (ASME) Code Requirement to Perform Visual Examination Of Interior Surface of Reactor Pressure Vessel Support Skirt - Brunswick Steam Electric Plant, Units 1 and 2 (BSEP 95-0188)"

4. Letter from NRC to CP&L, dated February 17, 2000, "Brunswick Steam Electric Plant, Unit Nos. 1 and 2 - Inservice Inspection Program - Third 10-year Interval - Evaluation of Request for Relief Nos. RR-1 through RR-25," ADAMS Accession Number ML003685643.