CP&L

Carolina Power & Light Company
P.O. Box 10429
Southport, NC 28461-0429

AUG 0 8 2000

10 CFR 50.55a(a)(3)(i)

SERIAL: BSEP 00-0111

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

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-324/LICENSE NO. DPR-62
REQUEST FOR APPROVAL OF RELIEF REQUEST FOR THE THIRD 10-YEAR INSERVICE INSPECTION PROGRAM

Gentlemen:

Summary

The purpose of this letter is to request NRC approval of an alternative to the requirements of the 1989 Edition of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, for the Brunswick Steam Electric Plant (BSEP), Unit No. 2. The proposed alternative is based on information provided in NRC Information Notice 98-44, "Ten-Year Inservice Inspection (ISI) Program Update For Licensees That Intend To Implement Risk-Informed ISI Of Piping," and Carolina Power & Light (CP&L) Company's plans to submit and obtain NRC approval of a risk-informed inservice inspection program for Class 1 piping at BSEP, Unit Nos. 1 and 2.

Background

By letter dated April 23, 1998, CP&L submitted the third 10-year ISI program for BSEP, Unit Nos. 1 and 2. The code of record for the third 10-year inservice inspection program is the ASME Code, Section XI, 1989 Edition with no addenda. The third 10-year ISI interval began on May 11, 1998. BSEP has completed approximately one-third of the current 10-year ISI interval.

On December 10, 1998, the NRC issued Information Notice 98-44. The information notice indicates that for non-pilot plant licensees that intend to implement a risk-informed inservice inspection (RI-ISI) program, the NRC will consider authorizing a delay of up to two years in implementing the next 10-year ISI program to allow the licensee to develop and obtain approval for the RI-ISI program for piping. The information notice also indicates that a request for delay must provide adequate justification and include a clear indication that inspections will continue before implementation of the RI-ISI program.

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CP&L is currently developing a RI-ISI program, for Class 1 piping, using the guidance of ASME Section XI Code Case N-578, "Risk-Informed Requirements For Class 1, 2, and 3 Piping, Method B." By January 15, 2001, CP&L expects to submit to the NRC a RI-ISI Program for Class 1 piping at the BSEP, Unit Nos. 1 and 2.

Requested Action

In accordance with 10 CFR 50.55a(a)(3)(i), CP&L is requesting relief from the requirements of the 1989 Edition of the ASME Code, Section XI, for BSEP, Unit No. 2. CP&L is requesting approval of Relief Request RR-27, "Examination Category B-J, B-F Period Requirements" Revision 0, as an alternative to the minimum examination percentages associated with Code Categories B-J and B-F for the first inspection period of the current inspection interval. Approval of the request will allow delay of certain Class 1 piping weld examinations that may no longer be required once a risk-informed inservice inspection program is established. Approval of Relief Request RR-27 is being requested for BSEP, Unit No. 2 only.

Consistent with the guidance in Information Notice 98-44, CP&L continues to perform inspections before implementation of the RI-ISI program. BSEP, Unit No. 2 has completed approximately 10 percent of the interval requirements for Category B-F welds and 9 percent of the interval requirements for Category B-J welds. However, delaying performance of the remaining Category B-F and B-J weld examinations for the first inspection period provides an opportunity to avoid personnel radiation exposure associated with Class 1 piping inspections that may not be required following approval of a RI-ISI program. Other Class 1, 2, and 3 examinations required by the ASME Code will not be affected by the requested relief.

Approval of the proposed alternative is requested by December 1, 2000, in order to support work planning activities for BSEP, Unit No. 2 Refueling Outage 14 (i.e., B215R1). The B215R1 outage is scheduled to begin on February 24, 2001.

Precedents

By letter dated December 14, 1999, the NRC approved a similar alternative request for relief for Niagara Mohawk Corporation's Nine Mile Point Nuclear Station, Unit 2. The approved alternative authorized a delay of 2 years for conforming to the minimum examination percentage requirements required by the 1989 edition of the ASME Code, Section XI, for piping weld examinations. The enclosed relief request is consistent with the relief requested submitted and approved for Nine Mile Point Nuclear Station, Unit 2.

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Background

By letter dated April 23, 1998, CP&L submitted the third 10-year ISI program for BSEP, Unit Nos. 1 and 2. The code of record for the third 10-year inservice inspection program is the ASME Code, Section XI, 1989 Edition with no addenda. The third 10-year ISI interval began on May 11, 1998. BSEP has completed approximately one-third of the current 10-year ISI interval.

On December 10, 1998, the NRC issued Information Notice 98-44. The information notice indicates that for non-pilot plant licensees that intend to implement a risk-informed inservice inspection (RI-ISI) program, the NRC will consider authorizing a delay of up to two years in implementing the next 10-year ISI program to allow the licensee to develop and obtain approval for the RI-ISI program for piping. The information notice also indicates that a request for delay must provide adequate justification and include a clear indication that inspections will continue before implementation of the RI-ISI program.

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Please refer any questions regarding this submittal to Mr. Leonard R. Beller, Supervisor - Licensing, at (910) 457-2073.

Sincerely,

Warren J. Dorman
Manager - Regulatory Affairs
Brunswick Steam Electric Plant

WRM/wrm

Enclosure: Relief Request RR-27, Revision 0

cc (with enclosures):

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ENCLOSURE

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-324/LICENSE NO. DPR-62
REQUEST FOR APPROVAL OF RELIEF REQUEST
FOR THE THIRD 10-YEAR INSERVICE INSPECTION PROGRAM

Relief Request RR-27, Revision 0

RELIEF REQUEST: RR-27 (Rev. 0)

SUBJECT: EXAMINATION CATEGORY B-J, B-F PERIOD REQUIREMENTS

COMPONENTS FOR WHICH RELIEF IS REQUESTED:

This request for relief is applicable to Class 1 piping welds, American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, Categories B-J and B-F, at the Brunswick Steam Electric Plant (BSEP), Unit No. 1.

ASME SECTION XI CODE REQUIREMENT:

For the third 10-year inservice inspection (ISI) program for BSEP, Unit Nos. 1 and 2, the code of record is the ASME Code, Section XI, 1989 Edition, with no addenda. BSEP, Unit No. 2 is performing inservice examinations in accordance with the schedule of Inspection Program B of IWA-2432. For Class 1 components, Table IWB-2412-1, for Inspection Program B, requires a minimum percentage of the required examinations in each category of welds to be completed during the first inspection period of the inspection interval. For the first inspection period of the inspection interval, the minimum examination requirement is 16 percent.

REQUESTED RELIEF:

In accordance with 10 CFR 50.55a(a)(3)(i), relief is requested from the Table IWB-2412-1 requirements for meeting the minimum examination percentages associated with Code Categories B-J and B-F during the first inspection period of the third 10-year interval. The augmented examinations required under Generic Letter 88-01, "NRC Position on IGSCC in BWR Austenitic Stainless Steel Piping," for Category C, D, and E welds are being excluded from Relief Request RR-27. The augmented examinations for Category A (i.e., resistant material) welds are being included under Relief Request RR-27 since they are being included in a Risk-Informed Inservice Inspection (RI-ISI) Program analysis.

BASIS FOR REQUESTING RELIEF:

In the *Federal Register* on August 16, 1995 (i.e., 60 FR 42622), the NRC published a policy statement which indicated that the use of probabilistic risk assessment (PRA) methods in nuclear regulatory activities should be increased to the extent supported by the state of the art in PRA methods and data and in a manner that complements the NRC's deterministic approach. In support of the NRC policy for incorporating risk insights into the regulatory framework, Regulatory Guide 1.178, "An Approach For Plant-Specific Risk-Informed Decisionmaking Inservice Inspection of Piping," was published in July 1998. This Regulatory Guide provides guidance on approaches considered acceptable to the NRC in meeting the existing Section XI requirements for the scope and frequency of ISI programs. The Regulatory Guide indicates that until RI-ISI is approved for generic use, the NRC will consider approval, in accordance with

RELIEF REQUEST: RR-27 (Rev. 0)

SUBJECT: EXAMINATION CATEGORY B-J, B-F PERIOD REQUIREMENTS

10 CFR 50.55a(a)(3)(i), of licensee requests to use risk-informed information to support change in nuclear power plant ISI programs.

Subsequently, in Information Notice 98-44, "Ten-Year Inservice Inspection (ISI) Program Update For Licensees That Intend To Implement Risk-Informed ISI Of Piping," the NRC indicated that it will consider authorizing a delay of up to two years in the implementation of a 10-year ISI Program, for piping only, to allow licensees to develop and obtain approval for a RI-ISI Program using NRC-approved topical reports.

BSEP is currently in the first inspection period of the third 10-year inspection interval. The first inspection period ends on May 11, 2001. For BSEP, Unit No. 2, there are two refueling outages during the first inspection period: Refueling Outage 13 (i.e., B214R1) and Refueling Outage 14 (i.e., B215R1). During Refueling Outage 13 for BSEP, Unit No. 2, CP&L completed examinations of approximately 10 percent of the interval requirements for Category B-F welds and 9 percent of the interval requirements for Category B-J welds.

Because the first inspection period ends on May 11, 2001, to meet the period requirements of IWB-2412-1, the remaining Category B-J and B-F welds must be examined during the next BSEP, Unit No. 2 refueling outage (i.e., B215R1), currently scheduled for February-March 2001. This request for relief will eliminate the performance of piping weld examinations that may be no longer required under an RI-ISI program, with the resultant savings in radiation exposure and plant resources.

PROPOSED ALTERNATIVE:

Carolina Power & Light (CP&L) Company is currently developing a RI-ISI Program using the guidance of ASME Section XI Code Case N-578, "Risk-Informed Requirements For Class 1, 2, and 3 Piping, Method B," for Code Category B-J and B-F piping welds. This RI-ISI Program is expected to result in a substantial reduction in the required number of piping weld examinations. The RI-ISI Program will be developed and submitted, prior to BSEP, Unit No. 2 Refueling Outage 14 (i.e., B215R1), for subsequent NRC review and approval. Upon approval of the RI-ISI Program submittal, examination of the reduced number of piping welds will be scheduled over the remainder of the outages in the third 10-year inspection interval. BSEP, Unit No. 2 will be in conformance with the minimum percentage of welds requiring inspection by the end of the second inspection period of the third 10-year inspection interval.

In Information Notice 98-44, the NRC stated that the performance of augmented examinations would not be affected by approval of delays in updating ISI programs to accommodate development of RI-ISI programs. Accordingly, this request excludes the augmented examinations required under Generic Letter 88-01, for Category C, D, and E welds are being excluded from Relief Request RR-27. The augmented examinations for

RELIEF REQUEST: RR-27 (Rev. 0)

SUBJECT: EXAMINATION CATEGORY B-J, B-F PERIOD REQUIREMENTS

Category A (i.e., resistant material) welds are being included under Relief Request RR-27 since they are being included in RI-ISI Program analysis.

REFERENCES:

1. ASME Boiler and Pressure Vessel Code, Section XI, Rules for Inservice Inspection of Nuclear Power Plant Components, 1989 Edition (no Addenda).

2. ASME Boiler and Pressure Vessel Code, Section XI, Code Case N-578, "Risk-Informed Requirements For Class 1, 2, and 3 Piping, Method B," September 2, 1997.

3. Title 10, Code of Federal Regulations, Part 50, Section 55a, Codes and Standards (10 CFR 50.55a).

4. NRC Information Notice 98-44, "Ten-Year Inservice Inspection (ISI) Program Update For Licensees That Intend To Implement Risk-Informed ISI Of Piping"