CP&L

**Carolina Power & Light Company**
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May 14, 1996

SERIAL: BSEP 96-0174

U. S. Nuclear Regulatory Commission
ATTENTION: Document Control Desk
Washington, DC 20555

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
INSERVICE TESTING PROGRAM
ADOPTION OF ASME /ANSI OPERATIONS AND MAINTENANCE STANDARD
PART 10 (OM-10)

Gentlemen:

The purpose of this letter is to request approval by the Nuclear Regulatory Commission (NRC) for the Brunswick Steam Electric Plant to use a portion of the American Society of Mechanical Engineers (ASME) Code, Section XI, 1987 Edition, with Operational and Maintenance Code OM-10a-1988, Addenda Part 10. The basis for this request is described in Enclosure 1. Approval of this request is needed by October 1, 1996 based on the ASME Code, Section XI, Subsection IWV-3422 requirement to complete the currently required testing at least once every 2 years.

Please refer any questions regarding this submittal to Mr. Mark Turkal at (910) 457-3066.

Sincerely,

200028

G. D. Hicks
Manager — Regulatory Affairs
Brunswick Nuclear Plant

WRM/wrm

Enclosures



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cc: U. S. Nuclear Regulatory Commission
ATTN.: Mr. Stewart D. Ebneter, Regional Administrator
101 Marietta Street, N.W., Suite 2900
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Mr. C. A. Patterson
NRC Senior Resident Inspector - Brunswick Units 1 and 2:

U.S. Nuclear Regulatory Commission
ATTN.: Mr. David C. Trimble, Jr. (Mail Stop OWFN 14H22)
11555 Rockville Pike
Rockville, MD 20852-2738

The Honorable H. Wells
Chairman - North Carolina Utilities Commission
P.O. Box 29510
Raleigh, NC 27626-0510

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324
LICENSE NOS. DPR-71 AND DPR-62
INSERVICE TESTING PROGRAM
ADOPTION OF ASME /ANSI OPERATIONS AND
MAINTENANCE STANDARD, PART 10 (OM-10)

SUMMARY:

The purpose of this letter is to request approval by the Nuclear Regulatory Commission (NRC) for the Brunswick Steam Electric Plant to use a portion of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code pertaining to the Operations and Maintenance Standards, Part 10 (OM-10) for valve leakage testing in lieu of the requirements contained in ASME Code, Section XI, IWV-3420.

DISCUSSION:

The Brunswick Plant Inservice Testing Program is currently based on the requirements of the ASME Boiler and Pressure Vessel (B&PV) Code (hereafter referred to as "the Code"), Section XI, 1980 Edition with Winter 1981 Addenda. Subsection IWV of the ASME Code, Section XI provides requirements for the inservice testing of Class 1,2, and 3 valves. Subarticle IWV-3420, "Valve Leak Rate Test" requires that Category A valves be leak tested except for those valves which function in the course of plant operation in a manner that demonstrates functionally adequate seat tightness.

At present, as stated in 10 CFR 50.55a(b)(2), the Commission has approved the use of the 1989 edition of the ASME Boiler and Pressure Vessel Code, Section XI including addenda through the 1988 Addenda with restrictions. One restriction on this approval is contained in 10 CFR 50.55a(b)(2)(vii) and states the following:

> *Inservice testing of containment isolation valves.* When using subsection IWV in the 1988 Addenda or the 1989 Edition of section XI, Division 1, of the ASME Boiler and Pressure Vessel Code, leakage rates for category A containment isolation valves that do not provide a reactor coolant system pressure isolation function must be analyzed in accordance with paragraph 4.2.2.3(e) of part 10, and corrective actions for these valves, must be made in accordance with paragraph 4.2.2.3(f) of part 10 of ASME/ANSI OMa-1988 Addenda to ASME/ANSI OM-1987.

As an alternative, CP&L proposes to perform leak testing of Category A valves in accordance with the Operations and Maintenance Standards, Part 10 (OM-10), "Inservice Testing of Valves in Light-Water Reactor Power Plants." In the 1988 Addenda and the 1989 Edition of the ASME Boiler and Pressure Vessel Code, Section XI, Subsection IWV was revised to reference Operations and Maintenance (OM) Standard, ASME/ANSI OM-1987 (1988a addenda of OM-10).

Section 4.2.2 of the OM-10 standard addresses valve seat leakage rate testing. Specifically, paragraph 4.2.2.2, "Containment Isolation Valves" states the following:

> Category A valves, which are containment isolation valves, shall be tested in accordance with Federal Regulations 10CFR50, Appendix J. Containment isolation valves which also provide a reactor coolant system pressure isolation function shall additionally be tested in accordance with paragraph 4.2.2.3.

Adoption of the OM-10 testing requirements in lieu of the requirements of the 1980 Edition of the ASME Code, Section XI, IWV-3420 will allow CP&L to use the requirements of Title 10 of the Code of Federal Regulations, Part 50, Appendix J, Option B for leak testing of Category A valves which are containment isolation valves. This will allow the use of performance-based testing frequencies for local leak rate testing (LLRT).

CONCLUSION:

As an alternative, CP&L proposes to perform leak testing of Category A valves in accordance with the Operations and Maintenance Standard, Part 10 (OM-10), "Inservice Testing of Valves in Light-Water Reactor Power Plants." The Company requests approval by the NRC for the Brunswick Steam Electric Plant to use the OMa-10 Addenda to ASME/ANSI OM-1987. Such an approval is consistent with 10 CFR 50.55a(g)(4)(iv), which states that:

> Inservice examination of components and system pressure tests may meet the requirements set forth in subsequent editions and addenda that are incorporated by reference in paragraph (b) of this section, subject to the limitations and modifications listed in paragraph (b) of this section, and subject to Commission approval. Portions of editions or addenda may be used provided that all related requirements of the respective editions or addenda are met.

The Commission has approved the use of the 1989 Edition of the ASME Boiler and Pressure Vessel Code, Section XI including addenda through the 1988 Addenda. Subsection IWV of the 1989 Edition of the ASME Code, Section XI, including addenda through the 1988 Addenda, has been revised by the NRC to reference and permit the use of the Operations and Maintenance (OM) Standard, ASME/ANSI OM-1987 (1988 addenda of OM-10). Therefore, adoption of the OM-10 standard for containment isolation valve leak rate testing is consistent with the requirements of the 10 CFR 50.55a and the ASME Code, Section XI.

REFERENCES:


1. American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code, Section XI, 1980 Edition with Winter 1981 Addenda.

2. American Society of Mechanical Engineers/ American National Standards Institute (ASME/ANSI) Operations and Maintenance Standards, Part 10 (OM-10), "Inservice Testing of Valves in Light-Water Reactor Power Plants," 1988 Addenda.

3. Title 10, Code of Federal Regulations, Part 50, Appendix J, Option B, "Primary Reactor Containment Leakage Testing For Water-Cooled Power Reactors."

4. Title 10, Code of Federal Regulations, Part 50.55a, "Codes and Standards."

ENCLOSURE 2

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
NRC DOCKET NOS. 50-325 AND 50-324
OPERATING LICENSE NOS. DPR-71 AND DPR-62
INSERVICE TESTING PROGRAM
ADOPTION OF ASME /ANSI OPERATIONS AND MAINTENANCE
STANDARD PART 10 (OM-10)

LIST OF REGULATORY COMMITMENTS

The following table identifies those actions committed to by Carolina Power & Light Company in this document. Any other actions discussed in the submittal represent intended or planned actions by Carolina Power & Light Company. They are described to the NRC for the NRC's information and are not regulatory commitments. Please notify the Manager-Regulatory Affairs at the Brunswick Nuclear Plant of any questions regarding this document or any associated regulatory commitments.

| | Commitment | Committed date or outage |
|---|---|---|
| 1. | Perform leak testing of Category A valves in accordance with the Operations and Maintenance Standard, Part 10 (OMa-10 Addenda to ASME/ANSI OM-1987). | Following NRC approval |