

February 23, 2006

Mr. James Scarola, Vice President
Brunswick Steam Electric Plant
Carolina Power & Light Company
Post Office Box 10429
Southport, North Carolina 28461

SUBJECT: BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2 - REQUEST FOR
RELIEF NO. 37, REVISION 1, REGARDING THE DUTIES OF THE AUTHORIZED
NUCLEAR INSERVICE INSPECTOR (TAC NOS. MC8547 AND MC8548)

Dear Mr. Scarola:

By letter dated October 28, 2005, Carolina Power & Light Company (the licensee), also doing business as Progress Energy Carolinas, Inc., requested U. S. Nuclear Regulatory Commission (NRC) approval for relief from the requirements pertaining to the duties of an Authorized Nuclear Inservice Inspector (ANII) as identified in the 1989 Edition of ASME Section XI, IWA-2110. Specifically, the licensee for Brunswick Steam Electric Plant (BSEP), Units 1 and 2, requested relief for inservice testing (IST) of pumps and valves from the requirements of the 1989 Edition of the ASME Section XI Code, IWA-2110, which states, in part, that it is the duty of the inspector to verify that the inservice tests and examinations required have been completed and the results recorded.

The NRC staff has reviewed the relief request and concludes that Relief Request 37, Revision 1, to eliminate the specific requirements for the ANII from the IST program for pumps and valves, is authorized pursuant to 50.55a(a)(3)(i) of Title 10 of the *Code of Federal Regulations* for BSEP Units 1 and 2, for the third IST interval on the basis that the alternative provides an acceptable level of quality and safety. The relief is granted on the basis that the alternative as described in the October 28, 2005, request provides an acceptable level of quality and safety. The proposed alternative is approved for the remainder of the third 10-year inservice inspection interval which ends on May 10, 2008.

If you have any questions regarding this approval, please contact the Brunswick Project Manager, Brenda Mozafari, at 301-415-2020.

Sincerely,

/RA by D. Pickett for/

Michael L. Marshall, Jr., Chief
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-325 and 50-324

Enclosure: Safety Evaluation

cc w/encl: See next page

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The NRC staff has reviewed the relief request and concludes that Relief Request 37, Revision 1, to eliminate the specific requirements for the ANII from the IST program for pumps and valves, is authorized pursuant to 50.55a(a)(3)(i) of Title 10 of the *Code of Federal Regulations* for BSEP Units 1 and 2, for the third IST interval on the basis that the alternative provides an acceptable level of quality and safety. The relief is granted on the basis that the alternative as described in the October 28, 2005, request provides an acceptable level of quality and safety. The proposed alternative is approved for the remainder of the third 10-year inservice inspection interval which ends on May 10, 2008.

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*No Legal Objection

NRR-028

OFFICE	LPL2-2/PM	LPL2-2/LA	CPTB:DCI	OGC	LPL2-2/BC
NAME	BMozafari	BClayton	SLee by memo dated	SHamrick*	DPickett for MMarshall
DATE	2/21/06	2/21/06	2/17/06	2/23/06	2/23/06

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO THE INSERVICE TESTING PROGRAM RELIEF REQUEST FOR
BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2
DOCKET NUMBERS 50-325 AND 50-324

1.0 INTRODUCTION

Title 10 of *Code of Federal Regulations* (10 CFR), Section 50.55a, requires that inservice testing (IST) of certain American Society of Mechanical Engineers (ASME) Code Class 1, 2, and 3 pumps and valves be performed in accordance with Section XI of the ASME *Boiler and Pressure Vessel Code* (the Code) and applicable addenda, except where alternatives have been authorized or relief has been requested by the licensee and granted by the Nuclear Regulatory Commission (NRC) pursuant to paragraphs (a)(3)(i), (a)(3)(ii), or (f)(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. Section 50.55a authorizes the Commission to approve alternatives and to grant relief from ASME code requirements upon making the necessary findings. Nuclear Regulatory Commission guidance contained in Generic Letter (GL) 89-04, "Guidance on Developing Acceptable Inservice Testing Programs," provides alternatives to the Code requirements which are acceptable. Further guidance is given in GL 89-04, Supplement 1, and NUREG-1482, Revision 1, "Guidelines for Inservice Testing at Nuclear Power Plants."

By letter dated October 28, 2005, Carolina Power & Light Company, the licensee for Brunswick Steam Electric Plant, Units 1 and 2, submitted a relief request (RR) from the requirements pertaining to the duties of an Authorized Nuclear Inservice Inspector (ANII) as identified in the 1989 Edition of ASME Section XI, IWA-2110. The NRC staff has reviewed the RR and is providing the following evaluation for Brunswick 1 and 2.

2.0 EVALUATION

2.1 Relief Request RR-37, Revision 1

The licensee has requested relief for IST of pumps and valves from the requirements of the 1989 Edition of the ASME Section XI Code, IWA-2110, which states, in part, that it is the duty of the inspector to verify that the inservice tests and examinations required have been completed and the results recorded.

Enclosure

2.1.1 Licensee's Basis for Requesting Relief

As a basis for the requested relief, the licensee states:

The inservice testing (IST) related reviews and verifications conducted by the Authorized Nuclear Inservice Inspector have not provided an increase in quality and safety commensurate with the level of effort required to perform these tasks. In addition, the level of expertise of the Authorized Nuclear Inservice Inspector is generally associated with inservice inspection, rather than IST, activities. As a result, the 1999 Addenda to the 1998 Edition of the ASME Section XI Code removed the requirement for the Authorized Nuclear Inservice Inspector to verify that the IST required on pumps and valves has been completed and the results recorded.

The licensee also states that the Inspector's review of the IST Program, as outlined in IWA-2110, is less comprehensive than the review required for the inservice inspection (ISI) activities, the level of expertise of the Inspector is generally associated with ISI, rather than IST. The licensee further states that the on-site inspectors do not have the training or background experience to make determinations about component safety functions in order to verify program scope or to assess the operational readiness of components based on test results. The licensee also states there is no quality-related benefit in the Inspector duplicating the reviews performed by plant personnel.

The licensee states that a plant procedure is in place which outlines the process for reviewing changes to the IST Program to assure compliance to the Code and regulatory commitments. The licensee states that these reviews are performed by qualified personnel who have experience in the Code-required testing of pumps and valves and that a multi-layered review process is also in place to verify test completions and recording of test results. Finally, the licensee states that this process includes having a qualified IST engineer review completed surveillances to ensure requirements have been met, ensure corrective actions are initiated in the event of unsatisfactory test results, and monitor component performance for identification of adverse trends.

2.1.2 Proposed Alternative Testing

As an alternative to the above stated Code requirement, the licensee proposes to perform a multi-layered review of the IST Program by plant personnel, as described above, in lieu of the Inspector's activities specified in subparagraph IWA-2110.

2.1.3 Evaluation

The 1989 Edition of Section XI, IWA-2110, as well as the 1995 Edition with the 1996 Addenda of the OM Code requires that IST activities be verified by an ANII. The ANII's duties are to verify that inservice tests on pumps, valves, and component supports have been completed and results recorded. The licensee proposes to eliminate from the IST program for pumps and valves the specific duties for the ANII. The licensee states that Brunswick 1 and 2 have a multi-layered review process that performs the same functions as the ANII with individuals who

have experience in the Code-required testing of pumps and valves. Also, the IST program is subject to the Brunswick 1 and 2 quality assurance program.

As stated by the licensee, there is a multi-layered review process that performs the same functions as the ANII. ANIIs generally do not have the training or background experience to make determinations of the safety function of components in order to verify the scope of the IST program, or assess the operational readiness of components based on test results. Therefore, in the 1999 Addenda to the 1998 Edition of the ASME Section XI Code, the requirements for the ANII have been removed.

On the basis that the licensee's review process for its IST program provides an equivalent level of quality and safety as the Code requirements for ANII involvement, the NRC staff finds that the proposed alternative is acceptable.

3.0 CONCLUSION

The NRC staff concludes that Relief Request RR-37, Revision 1, to eliminate from the IST program for pumps and valves the specific requirements for the ANII is authorized pursuant to 10 CFR 50.55a(a)(3)(i) on the basis that the alternative provides an acceptable level of quality and safety. The proposed alternative is approved for the remainder of the third 10-year inservice inspection interval which ends on May 10, 2008.

Dated: February 23, 2006

Principal Contributor: Charles G. Hammer

Mr. James Scarola
Carolina Power & Light Company

Brunswick Steam Electric Plant
Units 1 and 2

cc:

David T. Conley
Associate General Counsel II -
Legal Department
Progress Energy Service Company, LLC
Post Office Box 1551
Raleigh, North Carolina 27602-1551

Mr. David R. Sandifer, Chairperson
Brunswick County Board of Commissioners
Post Office Box 249
Bolivia, North Carolina 28422

Resident Inspector
U. S. Nuclear Regulatory Commission
8470 River Road
Southport, North Carolina 28461

Mr. John H. O'Neill, Jr.
Shaw, Pittman, Potts & Trowbridge
2300 N Street NW.
Washington, DC 20037-1128

Ms. Beverly Hall, Section Chief
Division of Radiation Protection
N.C. Department of Environment
and Natural Resources
3825 Barrett Dr.
Raleigh, North Carolina 27609-7721

Mr. Ben Waldrep
Plant General Manager
Brunswick Steam Electric Plant
Carolina Power & Light Company
Post Office Box 10429
Southport, North Carolina 28461-0429

Public Service Commission
State of South Carolina
Post Office Drawer 11649
Columbia, South Carolina 29211

Ms. Margaret A. Force
Assistant Attorney General
State of North Carolina
Post Office Box 629
Raleigh, North Carolina 27602

Mr. Robert P. Gruber
Executive Director
Public Staff - NCUC
4326 Mail Service Center
Raleigh, North Carolina 27699-4326

Mr. T. P. Cleary
Director - Site Operations
Brunswick Steam Electric Plant
Carolina Power & Light Company
Post Office Box 10429
Southport, North Carolina 28461-0429

Mr. Norman R. Holden, Mayor
City of Southport
201 East Moore Street
Southport, North Carolina 28461

Mr. Warren Lee
Emergency Management Director
New Hanover County Department of
Emergency Management
Post Office Box 1525
Wilmington, North Carolina 28402-1525

Mr. Chris L. Burton, Manager
Performance Evaluation and
Regulatory Affairs PEB 7
Progress Energy
Post Office Box 1551
Raleigh, North Carolina 27602-1551

Mr. Edward T. O'Neil
Manager - Support Services
Brunswick Steam Electric Plant
Carolina Power & Light Company
Post Office Box 10429
Southport, North Carolina 28461