



Carolina Power & Light Company

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Mr. James P. O'Reilly, Regional Administrator
United States Nuclear Regulatory Commission
Suite 2900
101 Marietta Street, NW
Atlanta, GA 30303

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261
LICENSE NO. DPR-23
RESPONSE TO IE BULLETIN NO. 83-06

Dear Mr. O'Reilly:

Carolina Power & Light Company (CP&L) has reviewed your letter dated July 22, 1983, IE Bulletin 83-06, "Nonconforming Materials Supplied by Tube-Line Corporation Facilities at Long Island City, New York; Houston, Texas; and Carol Stream, Illinois." In response to this Bulletin, CP&L hereby provides the following information relative to the H. B. Robinson Steam Electric Plant, Unit No. 2 (HBR2). Carolina Power & Light Company considers that all of the actions required by this Bulletin have been completed.

Bulletin Item 1

Action Item 1 required review of the lists of purchasing and receiving companies in Attachments 2 and 3 of the Bulletin and determination if any Tube-Line (T-L) supplied ASME Code materials had been furnished to HBR2. Attachment 3 of the Bulletin stated that T-L manufactured material supplied by Gulfalloy, Incorporated, was furnished for HBR2.

The lists in Attachments 2 and 3 of the Bulletin have been reviewed. Additionally, a review was conducted by the HBR2 Quality Assurance organization of plant operations and construction (post-commercial operation) procurement documents initiated for pipe and pipe fittings. This review was not restricted to the identified procurement from Gulfalloy, Incorporated. Two purchase orders were identified involving T-L material supplied by Gulfalloy, Incorporated. The materials identified were two 4-inch carbon steel 90° LR elbows and two 4-inch carbon steel 180° LR U-bends supplied in accordance with ASTM A234, Grade WPB, on one purchase order; and fourteen 1 1/4-inch stainless steel pipe caps ordered in accordance with ASTM A403 on the other purchase order.

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These materials were not ordered to the ASME Code. HBR2 safety-related systems piping and associated fittings are procured in accordance with applicable HBR2 procurement specification requirements and installed to ANSI B31.1. The stainless steel pipe caps supplied by T-L were, however, certified in received T-L documents to meet the requirements of ASME Code Section III, Class 2, 1980 Edition through 1981 Winter Addenda.

Bulletin Item 2a

Action Item 2a required operating plants to identify ASME Code materials furnished by T-L which are not yet installed in safety-related systems and the systems in which the materials will be installed.

List of not yet installed materials furnished by T-L are as follows:

<u>Type</u>	<u>Quantity</u>	<u>Material</u>	<u>Procurement Order Specification</u>	<u>System</u>
1-1/4 Inch Pipe Caps	14	304 SS	ASTM A403 Type 304	Will Not Be Installed
4 Inch 90° LR Elbow	1	CS	ASTM A234 GR WPB	Will Not Be Installed
4 Inch 180° LR U-Bend	1	CS	ASTM A234 GR WPB	Will Not Be Installed

As stated in response to Item 1, these materials were not ordered to the ASME Code. As also stated in response to Item 1, the pipe caps were certified in received T-L documents to meet the requirements of the ASME Code Section III, Class 2, 1980 Edition through 1981 Winter Addenda.

Bulletin Item 2b

Bulletin 83-06 requires action either in accordance with Item 2b or 2c. The identified materials not yet installed will not be installed. Therefore, implementation of a program which provides assurance that received T-L materials comply with applicable code and procurement specification requirements or which demonstrates that such materials are suitable for intended service is not required. See response to Item 2c.

Bulletin Item 2c

Action Item 2c requires that fittings and flanges not yet installed in safety-related systems at operating plants be replaced with materials which have been manufactured in full compliance with ASME Code Section III and the applicable procurement specification requirements.

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The identified fourteen 1-1/4 inch pipe caps not yet installed were physically removed from the site to preclude use. The identified 90° elbow and 180° U-bend fittings not yet installed were destructively tested thereby precluding their installation. The results of the metallurgical examination performed on the fittings are given in response to Item 3b.

Bulletin Item 3a

Action Item 3a requires operating plants to identify ASME Code materials furnished by T-L which have been installed in safety-related systems and the systems in which the materials are installed.

No installed ASME Code materials supplied by T-L were identified at HBR2. As discussed in response to Item 1, HBR2 safety-related system piping and associated fittings are procured in accordance with applicable procurement requirements and installed to ANSI B31.1.

Two T-L furnished pipe fittings were identified as being installed in the auxiliary feedwater systems, safety class 3. Identification of these fittings are as follows:

<u>Type</u>	<u>Quantity</u>	<u>Material</u>	<u>Material Specification</u>	<u>System</u>
4-Inch 90° LR Elbow	1	CS	ASTM A234 GR WPB	Auxiliary Feedwater System
4-Inch 180° LR U-Bend	1	CS	ASTM A234 GR WPB	Auxiliary Feedwater System

Bulletin 3b

Bulletin 83-06 requires action either in accordance with Item 2b or 2c. Action Item 3b requires operating plants with ASME Code materials furnished by T-L installed in safety-related systems to implement a program which provides assurance that received materials comply with ASME Code Section III and applicable procurement specification requirements or which demonstrates that such materials are suitable for intended service.

As discussed in response to 3a, the two T-L furnished fittings installed in the HBR2 safety class 3 auxiliary feedwater system were procured in accordance with applicable HBR2 procurement specification requirements and installed to ANSI B31.1.

The two installed fittings furnished by T-L were procured in the same purchase order to the same specification requirements. Two of each fitting type were procured. One of each fitting type was not installed as identified in response to Item 2a.

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Following identification of the installed T-L furnished fittings, CP&L implemented a metallurgical testing program to determine if the pipe fittings meet the mechanical property and chemical composition requirements of the procurement specification. Mechanical property, hardness testing, and chemical composition analyses were conducted on the two similar fittings not yet installed, one 90° elbow and one 180° U-bend. The elbow had the same heat number as the one installed; the U-bend had a heat number different from the one installed. Based on the testing results, the two not yet installed fittings meet the mechanical property and chemical composition requirements of the procurement specification. In addition, in-situ hardness testing was performed on the two installed fittings to obtain an estimate of the ultimate tensile strengths of the fittings. Based on the evaluation of these testing results, the installed 90° elbow meets the mechanical property requirements of the specification. However, the ultimate tensile strength (56.8 to 60.2 ksi, with 95 percent confidence) for the 180° U-bend was determined to be borderline with respect to the specification (60 ksi, minimum ultimate tensile strength).

Analysis of the design loadings for the two installed fittings was performed to evaluate the design requirements relative to an ultimate tensile strength lower than prescribed by specification. This analysis was performed using assumed tensile strengths of 53 ksi for each of the installed fittings. The stress analysis results indicated that both of the fittings meet the design loading requirements for an assumed ultimate tensile strengths of 53 ksi, which is conservatively lower than the ultimate tensile strength determined by the testing results.

Carolina Power & Light Company believes that the metallurgical examination and the design analysis results demonstrate that the two installed fittings are suitable for the intended service. Accordingly, the two installed fittings will be retained.

Bulletin Item 3c

Action Item 3c required that basis be provided for continued plant operation if the program requested by Item 3b had not been completed by the time of this Bulletin response.

Carolina Power & Light Company has completed the program defined in Item 3b.

Bulletin Item 4

Action Item 4 required a written report within 120 days of the date of the Bulletin that provides the results of those actions taken in response to the Bulletin.

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The Bulletin additionally requested a review of the general concerns expressed in the Bulletin for applicability to HBR2. Our review indicates that the general concerns are applicable to HBR2. As part of this review, we are investigating the possible use of additional inspection and testing during receipt inspection to strengthen QA program capabilities in detection of fraudulently supplied material. This investigation is scheduled to be completed during the first quarter of 1984. Carolina Power & Light Company will submit a report describing the results of the investigation and a schedule for implementation of any actions resulting therefrom by June 1, 1984.

If you have any questions concerning this submittal, please contact a member our Nuclear Licensing Staff.

Yours very truly,



A. B. Cutter

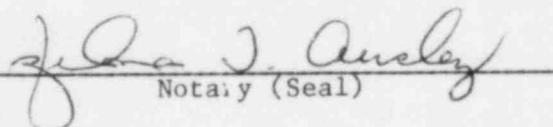
Vice President

Nuclear Engineering & Licensing

AWS/ccc (8498NLU)

cc: Mr. G. Requa (NRC)
Mr. Steve Weise (NRC-HBR)

A. B. Cutter, having been first duly sworn, did depose and say that the information contained herein is true and correct to the best of his information, knowledge and belief; and the sources of his information are officers, employees, contractors, and agents of Carolina Power & Light Company.


Notary (Seal)

My commission expires:

February 18, 1985