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United States Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region II - Suite 2900
101 Marietta Street, NW
Atlanta, Georgia 30323

Reference:
RII: JP0:
50-424
50-425

File: X7BC24
Log: GN-507

Attention: Mr. James P. O'Reilly

The following is submitted further to our letters of November 23, 1983 (File: X7BC24, Log: GN-287) and March 22, 1984 (File: X7BC24, Log: GN-331), in response to I & E Bulletin 83-06, "Non-conforming Materials Supplied by Tube-Line Corporation Facilities at Long Island City, New York; Houston, Texas; and Carol Stream, Illinois:"

As reported in previous correspondence on this subject, all fittings supplied to the Vogtle Project directly from Tube-Line are two inches and smaller. It should also be noted that all are stainless steel materials. The Vogtle Project architect/engineer and "N" certificate holder, Bechtel Power Corporation, conducted a supplier quality audit of Tube-Line Corporation's Carol Stream Facility, which is the only Tube-Line facility which supplies stainless steel materials. The audit verified that although Tube-Line sub-vendors' quality assurance programs did not meet all the requirements of Subsection NA-3700/NCA-3800 of the ASME Boiler and Pressure Vessel Code (hereafter referred to as the "Code"), Tube-Line audit checklists indicated that in all cases suppliers' material identification and control programs were satisfactory.

Based on the audit results, Bechtel recommended that Georgia Power Company (GPC) invoke Subarticle NX-2600 from the 1977 Edition of Section III of the Code, which exempts two inches and smaller flanges and fittings from all NA 3700/NCA 3800 quality program requirements except for the requirements of NA 3767.4. This recommendation was accepted by GPC and the use of Subarticle NX-2600, with application limited to material supplied by Tube-Line Corporation, was approved on March 23, 1984.

To satisfy the requirements of NA 3767.4 for the ninety-three separate heats of materials two inches and smaller supplied to the Vogtle Project by Tube-Line (See Attachment A), chemical and physical property analyses on a representative sample of fifteen heats were

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performed by Bechtel's Materials and Quality Services Group. The results of the analyses were compared with the certified material test reports (CMTR) provided by Tube-Line with the fittings. Only one discrepancy was identified. One flange, classified as ASME SA182 F316 material, failed to meet minimum mechanical properties, but the Bechtel report attributed the failure to subsize specimens used in the testing due to the limited availability of materials from that heat (ABJB). The statistical accuracy of tests on subsize specimens is lower than results of tests using full size specimens. In addition, the Tube-Line CMTR indicated that heat ABJB complies with ASME chemical and mechanical properties, and the Bechtel test confirmed that the material conforms to required chemistry requirements. Metallographic evaluations also indicate that the material was properly heat treated. The heats and specimens used in the chemical and physical property analyses are identified in Attachment B.

Tube-Line CMTR's for Class 1 fittings contain a statement indicating that the represented materials have been tested and qualified in accordance with subarticle NB-2000 of the Code. Since NB-2000 contains the NDE requirements for Class 1 components, Georgia Power Company document reviewers accepted this statement as an adequate indication that required NDE testing had been performed. The CMTR's also contained a statement specific to the results of ultrasonic testing but did not specifically address liquid penetrant examination results. The Vogtle Project piping contractor and "NA" certificate holder, Pullman Power Products, recommended that Georgia Power Company verify that liquid penetrant testing had actually been performed. After reviewing the situation, Georgia Power Company initiated a Deviation Report for design engineering resolution to determine if required liquid penetrant testing records were available. Design engineering examined the documentation packages for Class 1 fittings but could find no liquid penetrant examination records. Tube-Line Corporation's Carol Stream facility was contacted and requested to provide the missing records. Tube-Line was unable to produce the records.

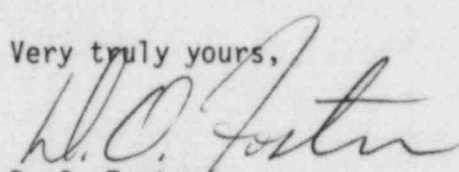
Approximately 1800 Class 1 fittings are affected by the lack of liquid penetrant testing records. Approximately 15% of these are installed in piping systems. Pullman Power Products conducted liquid penetrant examinations of approximately thirty uninstalled fittings to retain at the site in order to continue small bore piping installation and the remainder were returned to Tube-Line. Tube-Line and Consolidated Pipe and Supply Company, the prime supplier of the fittings to Vogtle, contracted Brand Examination Services and Testing Company (BESTCO) to perform liquid penetrant examinations of the returned fittings. Testing has been completed and preliminary results indicate that no discrepancies were identified.

The approximately 300 fittings already installed at Plant Vogtle will be liquid penetrant tested per Code requirements for Class 1 components. Testing will be conducted and documented by a qualified testing agency yet to be selected. Georgia Power Company will inform the NRC of the results of these tests as well as the final results of testing conducted by BESTCO when the information becomes available.

Previous correspondence on I & E Bulletin 83-06 indicated that eight 4 inch raised-face, 150#, ASTM A-105, Grade 79, slip-on flanges were identified as being supplied by Tube-Line through Johnston Pump Company of Glendora, California. These flanges were used in the fabrication of two Unit 2 Diesel Oil Storage Tank Pumps (Plant Equipment Nos. 2-2403-P4-001 and 2-2403-P4-002), which are Seismic Category 1, safety-related, Code Section III, Class 3 components. It was indicated that these flanges would require a complete evaluation relative to Code requirements. In preparing for this evaluation a visual examination of the flanges and the pumps, which were already installed in the plant, was performed. It was discovered that the flanges were marked with symbols which indicated that they were not manufactured by Tube-Line Corporation. Further investigations revealed that Tube-Line flanges were originally installed on the pumps by Johnston Pump Company but that, when informed of the controversy surrounding Tube-Line materials, Johnston Pump replaced the flanges with those manufactured by G&W Taylor Forge Division before they left their shop. Johnston Pump, however, failed to revise the documentation packages for the pumps. The document packages for both pumps still contained the Tube-Line CMTR and the NPV-1 Code Data Reports still indicated that the Tube-Line flanges were used. This oversight was reported to Johnson Pump Company, which promptly supplied corrected Code Data Reports and the correct CMTR.

This report contains no proprietary information and may be placed in the NRC's Public Document Room.

Very truly yours,


D. O. Foster

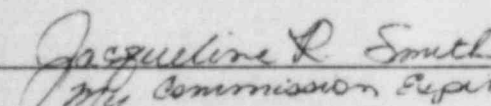
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Attachment

D. O. Foster states that he is the Vice President and Project General Manager of Vogtle Project and is authorized to execute this oath on behalf of Georgia Power Company and that to the best of his knowledge and belief the facts set forth in this letter are true.

GPC: 

Sworn to and subscribed before me this 15th day of January, 1985.


My Commission Expires: 7/11/88

xc: U. S. Nuclear Regulatory Commission
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Washington, D. C. 20555

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(Shaw, et. al.)
J. E. Joiner
(Troutman, et. al.)
D. C. Teper (GANE)
L. Fowler (LEAF)
T. Johnson (ECPG)

SUMMARY OF HEAT NUMBERS AND PURCHASE ORDER
ITEM NUMBERS BY VENDOR

<u>VENDOR</u>	<u>HEAT #</u>	<u>P.O. ITEM #'s</u>
1) <u>NBK</u> (Tokyo)	AABK	131
<u>Nippon Benkan Kogyo</u>	AABL	132
	AABS	554, 555
	AABT	558
	AACG	99
	AACF	062
	AACS	133
	AADA	161
	AADAB	552, 572, 573
	AADAC	571, 575, 551
	AADC	097, 098
	AAEB	063
	AAEBT	536
	AAEBU	537
	AAEBUA	538
	AAECD	539
	AAECE	540
	AAEP	553
	AAES	559
	AAET	578
	AAYW	065
	ABYA	064
	ABYB	574
	ABYC	577
	ACHA	065, 557
2) <u>KUZE</u> (Tokyo)	AAWW	100
<u>Taikyo Sangyo Co. Ltd</u>	AAWU	99
	AAWV	96
	ABTA	556
	ABTB	560
	ABZN	555
	ABZO	559
	ABZY	554
	ACKQ	576
	ACKR	579

<u>VENDOR</u>	<u>HEAT #</u>	<u>P.O. ITEM #'s</u>
3) <u>METALFAR</u>	ABHA	670
(Como, Italy)	ABJB	669, 727, 614, 611, 666, 730
	ABNE	667, 729, 612
	ABOC	651, 641, 596, 636, 637, 591, 642, 592, 609, 722, 597, 638, 652, 653, 598, 643, 593
	ABOD	668, 728, 613
	ABPD	610
	ABRD	585, 590, 650, 691, 584, 694, 595
	ABRE	647, 594, 599, 639, 644, 653, 654, 695, 696, 699, 700, 703, 704, 707, 708, 581, 587, 582, 646, 586, 643
	ABUD	605, 659, 660, 604, 692, 588, 583, 648
	ABUE	615, 726, 693, 694, 697, 701, 702, 705, 706, 601, 602, 603, 654, 656, 657, 658, 600, 640, 655, 695, 645
	ABUF	698, 694, 598, 584, 649
	ABWA	608, 663, 723, 661, 725, 606
	ABWB	609, 664
	ACAB	607, 665, 724, 610, 662, 721, 607
4) <u>HACKNEY</u>	ABVAG	552
(Dallas, Texas)	ABVA (U)	134
	(V)	
	ABVR	65
5) <u>MACLINE</u>	ACBB	132
(Montreal, Canada)	ACBC	134
	ACBD	135
	ACNA	131

<u>VENDOR</u>	<u>HEAT #</u>	<u>P.O. ITEM NUMBER</u>
<u>CUSTOM ALLOY</u> (Califon, N.J.)	PAUA	102
	PAUAB	103
	PAUAC	105
	PAUAD	104
	PAUAF	35
	PAUAG	103
	PAUAI	31
	PAUAJ	32
	PAUAK	33
	PAUAL	34
	PAUAM	70
	PAUAN	70
	PAUAO	66
	PAUAP	68
	PAUAQ	69
	PAUAR	31
	PAUAS	32
	PAUAT	67
	PAUAU	67
	PAUAW	70
	PAUB	103
	PAUE	34
	PAUF	34
	PAUG	34
	PAUH	35
	PAUI	35
7) <u>CAPITOL</u>	PAUJ	33
	PAUK	37
	PAUL	33
	PAUM	33
	PAUN	32
	PAUO	101
	PAUP	33
	PAUQ	102
	PAUR	34
	PAUS	67
	PAUT	698
	PAUW	699
	PAUX	705
	PAUY	707
	ABUF	
	ABRE	
	ABUE	
	ABRE	

Tube-Line Material and Heats Subjected to Additional Chemical and
Physical Property Analysis

PAUH	2" 90° Elbow
ABUE	2" 1500 # RFSW Flange
ABOC	3/4" 1500 # RFSW Flange
ABNE	3/4" 150 # Blind Flange
PAUT	1" 90° Elbow
PAUX	1 1/2" 90° Elbow
PAUAQ	1 1/2" 2500 # Flange
ABVR	2" 90° Elbow
AACF	3/4" 90° Elbow
ABYA	1 1/2" 90° Elbow
ABJB	1 1/2" 150 # RFSW Flange
AAEB	1" 90° Elbow
AAWW	2" 45° Elbow
ACBB	3/4" Tee

Note: Original mill test reports were reviewed concurrently with property analysis.