SPECIAL DELIVERY

February 27, 1979

United States Nuclear Regulatory Commission
Attention: Mr. Uldis Potapovs
Vendor Inspection Branch
Region IV
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

Subject: NRC Audit Report Dated 9/9/78
(No. 99900028/78-02)

Gentlemen:

Regarding the two outstanding items, resulting from the August 22-25, 1978, Quality Assurance Program Inspection conducted by Mr. R. E. Oller, the following actions have been taken by Tube Turns:

Finding No. 5(A.e)

The calibration subcontractor's certification for the calibration, performed in June, 1978, on Rockwell Hardness Testers No. 41V05 and No. 41V06, had not been furnished to Tube Turns.

1. Description of Steps That Have Been Taken to Correct This Item

Tube Turns has been unsuccessful in obtaining subcontractor's certificate for the calibration performed in June 1978. We have made numerous attempts to obtain, even to the extent of withholding payment of our last invoice. Presently, subcontractor has promised to provide us the certification.

The above actions are being taken although Tube Turns does not agree that the "missing certificate" is needed for the following reasons.

1) The "certificate" (See Exhibit No. 1.) is only a formal acknowledgement of the "Inspection Report" provided by the subcontractor's representative (See Exhibit No. 2.) at the time the testers are serviced and calibrated. Tube Turns did have, at the time of the audit, the "Inspection Report", dated June, 1978, for the equipment and time period in question (Exhibit No. 3). This report is much more comprehensive than the "certification" in question, and it proves, beyond a doubt, that the calibration was performed and what the results were.

2) Tube Turns had analyzed the use of these testers and find that there was no Rockwell Hardness testing performed during the period in question. Rockwell Hardness testing for ASME III materials is highly unusual for our products.

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2. Description of Steps Taken to Prevent Recurrence

Procedure TT-25-001, Attachment No. 17, has been prepared to describe servicing and calibration of Rockwell Hardness Testers. This will require that Tube Turns obtain only the Inspection Report. The only required calibration is that against the Standardized Blocks. (Exhibit 4)

3. Date Corrective Action Will Be Completed
2/23/79

Tube Turns is considering this response as satisfactory without obtaining the missing certification.

Finding No. 6 (E)

Regarding: The gas flow meters on welding equipment were not calibrated nor on a calibration schedule.

1. Description of Steps That Have Been Taken to Correct This Item

Tube Turns submitted an inquiry to ASME for Code Case interpretation on 10/10/78. We received the attached reply on 1/25/79.(See Exhibit 5.) Tube Turns has evaluated this response.

Tube Turns has also inquired from several sources about how to calibrate gas flow meters. We believe we have discovered a satisfactory method of calibrating flow meters. Tube Turns shall proceed with plans to purchase this equipment.

2. Description of Steps Taken to Prevent Recurrence

Tube Turns did not feel that calibration of flow meters was required because of the design of the flow meter, which has no adjustments, and from the fact that gas flow is used to provide an adequate shielding to prevent oxidation of the weld. Additionally, it was not industry practice to calibrate flow meters. We have determined that this is expected. Since this is now recognized, Tube Turns will set up a procedure to calibrate flow meters and add them to the Calibration Program.

3. Date Corrective Action Will Be Completed

Tube Turns will institute a calibration by 6/30/79. It will be necessary to obtain funds, procure calibration equipment and perform the necessary calibrations.

Sincerely,

J. L. Seay
Manager,
Quality Control

/dmt

Attachments:

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Certificate

EXHIBIT 1

ROCKWELL HARDNESS TESTER NO. 4JS-322(41-Y-5)

Tube Turns (Company) Louisville, Ky. (Location)

This is to Certify That a Wilson representative serviced the above *Rockwell* Hardness Tester on

12-5-78

The average of .....6..... tests, on *Wilson Rockwell* test blocks calibrated in the Standardizing Laboratory of the Wilson Instrument Division, was within the limits when using a standardized diamond *Brale* penetrator and/or a standardized 1/16" ball penetrator.

The following ranges were verified in accordance with ASTM designation: E 18.

30N-80.5		
30N-45		
30N-64.9		

Anthony C. Abbott

Wilson Representative

ACCO

Wilson Instrument Division

929 CONNECTICUT AVENUE, BRIDGEPORT, CONNECTICUT 06602 - (203) 335-2511

American Chain & Cable Company, Inc.
A Subsidiary of Babcock International Inc.

ACCO

Wilson Instrument Division

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American Chain & Cable Company, Inc.
Member of the Babcock & Wilcox Ltd Group of Companies

Service Due JUNE-79

INSPECTION REPORT

Report To: TUBE TURNS DIV CHEMTRON

Date: DEC-78

2800 W. BROADWAY

LOUISVILLE, KY 40211

EXHIBIT 2

Attention Of: STEVE AGY

Person's Interviewed:

*F — Tester Reading as Found
*L — Tester Reading as Left

Serial No. of Tester (TAG)	Location		HARDNESS OF STANDARDIZED BLOCKS 30N80.4 ± 0.7	30N65.0 ± 1.0	30N48.1 ± 1.0	C-62.8 ± 0.5	C-43.8 ± 1.0	C-26.1 ± 1.0	Cond. of Tester
HJS-322(41-405)	DEPT-4100	*F	81.2	64.9	48.5	/	/	/	Fair
		*L	80.4	65.0	48.1				
		*F							
		*L							
3R-1591(41-406)	DEPT-4100	*F	/	/	/	63.0	44.1	26.5	Good
		*L				62.8	43.8	26.1	
		*F							
		*L							
5JR-1581(45-221)	TOOL & DIE HEAT TREAT	*F	/	/	/	63.1	42.9	26.0	Good
		*L				62.8	34.8	26.1	
		*F							
		*L							
5JR-276(35-W98)	HEAT TREAT	*F	/	/	/	62.4	43.4	26.0	Good
		*L				62.8	43.8	26.1	
		*F							
		*L							
		*F							
		*L							
		*F							
		*L							
		*F							
		*L							

Comments & Recommendations: Cleaned, Repaired, Calibrated & Left Reading Within test block Limits

Periodic Service ~~Recommended~~ DUE Every 6 Months

CERTIFICATE FURNISHED ✓

REPAIR ORDER ATTACHED? YES ✓ No( )

WILSON INSTRUMENT DIVISION
929 CONNECTICUT AVENUE, BRIDGEPORT, CONN. 06602

REPRESENTATIVE G. W. Bendt

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CUSTOMER'S COPY

ACCO

Wilson Instrument Division

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American Chain & Cable Company, Inc.
Member of the Babcock & Wilcox Ltd Group of Companies

Service Due DEC-78

INSPECTION REPORT

6-14-78
P.O 26562

Report To: TUBE TURNS DIV-Chemtron
2800 W BROADWAY
LOUISVILLE, KY 40211

Date: JUNE-78

EXHIBIT 3

Attention Of: Jerry Roberts Person's Interviewed: JIM THOMAS

*F — Tester Reading as Found
*L — Tester Reading as Left

Serial No. of Tester	Location		HARDNESS OF STANDARDIZED BLOCKS C-65.0 ±0.5	C-45.0 ±1.0	C-25.0 ±1.0	30N80.6 ±0.7	30N45.6 ±1.0	30N64.5 ±1.0	Cond. of Tester
455-322	~~TAG#L405~~ DEPT-4100	*F	✓	✓	✓	80.8	44.8	45.7	Good
		*L				80.6	67.6	45.5	
		*F							
		*L							
342-1591	#1-406 DEPT-4100	*F	62.6	44.2	24.1	✓	✓	✓	Good
		*L	63.0	45.0	25.0				
		*F							
		*L							
5JR-1581	~~#5-321~~ TOOL+DIE HEAT TREAT	*F	62.6	44.4	24.5	✓	✓	✓	Good
		*L	63.0	45.0	25.0				
		*F							
		*L							
5JR-276	~~35-1648~~ TOOL+DIE	*F	62.9	44.9	25.0	✓	✓	✓	Good
		*L	63.0	45.0	25.0				
		*F							
		*L							
		*F							
		*L							
		*F							
		*L							
		*F							
		*L							

Comments & Recommendations: Cleaned repaired calibrated and left reading within 1st block limit

Periodic Service ~~Recommended~~ DUE Every 12 Months

CERTIFICATE FURNISHED

REPAIR ORDER ATTACHED? YES (✓) No( )

WILSON INSTRUMENT DIVISION
929 CONNECTICUT AVENUE, BRIDGEPORT, CONN. 06602

REPRESENTATIVE [signature]

T-766

EXHIBIT 4

CHEMETRON Piping Systems

Tube Turns Division
Chemetron Corporation
P.O. Box 987
Louisville, Ky. 40201

TT-25-001 Attachment 17
2/27/79

Servicing and Calibration of Rockwell Hardness Testers

1.0 SCOPE

This procedure describes how Tube Turns calibrates and services Rockwell Hardness Testers.

2.0 CALIBRATION STANDARDS

Tube Turns purchases Standardized Test Blocks for use as calibration standards in the range of hardness tests being conducted.

3.0 FREQUENCY OF CALIBRATION

Each Rockwell Hardness Tester shall be calibrated against a calibration standard prior to use.

4.0 FREQUENCY OF SERVICING

Each Rockwell Hardness Tester shall be serviced semiannually by an outside contractor. At the time of this service, the outside contractor shall calibrate each tester.

5.0 CERTIFICATION

The outside contractor shall provide an Inspection Report showing the results of the servicing and calibration.

Approved By: J. L. Seay
J. L. Seay

Date: 2/27/79

(EXHIBIT NO. 5)

The American Society of Mechanical Engineers

United Engineering Center • 345 E. 47th St., New York, N.Y. 10017 • 212-644-7722 • TWX-710-581-5267

January 25, 1979

Mr. S.D. Vitatoe
Tube Turns Division
Box 32160
Louisville, KY 40232

Subject: ASME Boiler and Pressure Vessel Code Sections III and IX, regarding calibration of welding equipment

Reference: Your letter to W.B. Hoyt, ASME

Our reference: BC-78-772; NI78-329

Dear Mr. Vitatoe:

Please refer to your letter of October 19, 1978. It is our understanding that the essentials of your inquiry and an appropriate interpretive reply may be stated as follows:

Inquiry: There appears to be a conflict between Interpretation IX-77-12 and Interpretation III-1-77-166. IX-77-12 states that when meters are used to record amps and volts, they must be calibrated; III-1-77-166 states that amp and/or voltmeters used on manual and semiautomatic welding equipment are not required to be included in the Calibration Program specified in NA-4535 (NCA-4134.12) of ASME III. What are the requirements for the calibration of ammeters and voltmeters on manual and semiautomatic welding machines?

What are the requirements for calibration of meters measuring the flow of shielding and/or backing gas for:

a) Manual Welding
b) Semiautomatic Welding
c) Automatic Welding
d) Machine Welding

Reply: There is no conflict between the interpretations on Section III and Section IX, as one covers requirements for production welding, and the

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other covers requirements for welding qualification. The Section III calibration requirements are basically that the equipment manufacturer's calibration and maintenance recommendations be followed, except in unusual conditions where supplementary maintenance and calibration requirements should be instituted, all of this to be included in the Certificate Holder's Quality Assurance Program.

Very truly yours,

Frank R. Gerety

Frank R. Gerety, P.E.
Assistant Secretary

FRG/ph