

ORGANIZATION: METAL BELLOWS CORPORATION
CHATSWORTH, CALIFORNIA

REPORT NO.:	99900394/83-01	INSPECTION DATE(S)	1/10-13/83	INSPECTION ON-SITE HOURS:	26
CORRESPONDENCE ADDRESS: Metal Bellows Corporation ATTN: Mr. J. C. Shafer Quality Assurance Manager 2097/ napp Street Chatsworth, CA 91311					
ORGANIZATIONAL CONTACT: Mr. J. C. Shafer, Quality Assurance Manager TELEPHONE NUMBER: (213) 341-4900					
PRINCIPAL PRODUCT: Flexible metal hose assemblies, pulsation dampeners, pressure vessels, expansion joints, and penetrations.					
NUCLEAR INDUSTRY ACTIVITY: Approximately 20 percent.					
ASSIGNED INSPECTOR: <u>I. Barnes</u> 2-7-83 <i>for</i> R. E. Oller, Reactive & Component Program Section (R&CPS) Date					
OTHER INSPECTOR(S):					
APPROVED BY: <u>I. Barnes</u> 2-7-83 I. Barnes, Chief, R&CPS Date					
INSPECTION BASES AND SCOPE:					
A. <u>BASES</u> : 10 CFR Part 50, Appendix B.					
B. <u>SCOPE</u> : This inspection included QA program implementation in the areas of manufacturing process control, internal audits, welding control, and qualification of NDE personnel and procedures.					
PLANT SITE APPLICABILITY:					
Not identified.					
DESIGNATED ORIGINAL Certified By <u>Rheanne Clark</u>					

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A. VIOLATIONS:
None

B. NONCONFORMANCES:
None

C. UNRESOLVED ITEMS:
None

D. OTHER FINDINGS OR COMMENTS:

1. Manufacturing Process Control: The NRC inspector reviewed the sections of the Metal Bellows Corporation (MBC) ASME accepted QA manual which were applicable to manufacturing in order to verify that these activities are controlled by the QA program.

Observations were made of inprocess work on metal hose parts consisting of machining, bellows forming, assembly, and dimensional inspection.

The NRC inspector also reviewed the following documents: (a) 1 traveler package consisting of manufacturing operation sheets (MOS) travelers, drawings, and procedures for inprocess work; (b) 11 types of records in a data package for completed Nine Mile Point, Unit 2 hose assemblies; (c) the Stone & Webster (S&W) procurement specification for the above Nine Mile Point, Unit 2 purchase; (d) 5 shop routing MOS travelers for parts manufacture; and (e) 5 MBC procedures.

This review was made in order to verify that ASME Section III, Classes 2 and 3 metal hose assemblies are manufactured, inspected, and tested, and the results documented in accordance with QA program requirements.

Within this area, no nonconformances were identified.

2. Internal Audits: The NRC inspector reviewed Section 12.0, "Internal Audit," of the MBC QA manual to verify that this activity is controlled by the QA program.

The NRC inspector also reviewed audit Procedure No. QSP-005 and internal audit records for the period of November 1981 through November 1982. These records consisted of a log, 22 checklists, and 9 corrective action request reports. In addition, training and certification records for two auditors were reviewed.

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Within this area, no nonconformances were identified, but one followup item was identified. This matter concerned Procedure No. QSP-005 which had not been revised to reflect the internal audit frequency of 12 months as required by Section 12.0 of the QA manual revised on November 1, 1982. The revised Procedure No. QSP-005 showing a 12-month audit frequency is in draft form, but has not been released for implementation. This item will be reviewed during a subsequent inspection.

3. Welding Control: The NRC inspector reviewed Section 5.0, "Welding," of the MBC QA manual to verify that this activity was controlled by the QA program.

Observations were made of weld rod storage, the calibration status of welding machine meters, and inprocess ASME Code production tacking and fillet welding operations on metal hose assemblies.

The NRC inspector also reviewed the following documents: (a) two shop routing MOS travelers; (b) a welder production history log; (c) performance qualification records for six welders; (d) a general type welding procedure and three welding procedure specifications and the supporting procedure qualification records; and (e) weld material issue cards for four different types of weld rod.

Within this area, no nonconformances were identified.

4. Qualification of NDE Personnel and Procedures: The NRC inspector reviewed Section 6.0, "Nondestructive Examination (NDE)," of the MBC QA manual in order to verify that this activity was controlled by the QA program.

The NRC inspector also reviewed records of SNT-TC-1A qualification and certification for three Level III NDE examiners and four Level II NDE technicians, and four NDE procedures pertaining to radiography, penetrant examination, visual examination, and helium leak testing.

Within this area, no nonconformances were identified.

Inspector R.E. OllerDocket No. 998039
Report No. 8301
Page 1 of 7Scope/Module Manufacturing
Process ControlDOCUMENTS EXAMINED

1	2	TITLE/SUBJECT	3	4
1	4	Metal Bellows Corporation QA Manual	11-15-82	3
2	8	ASME N & NPT Symbol Authorizations	9-25-81	NA
3	8	Following inprocess control documents located in the areas noted		
		(1) Final and Inprocess Inspec. Area.		
		a. Shop Routing MOS, J.O.-A16 73, P/N 79506	-	NA
		b. Rejection Report No 06786	12-16-82	"
		c. Detailed Drawing No 79506	7-8-82	N/C
		(2) Nondestructive Examination Area.		
		a. Shop Routing MOS, J.O.-A16722, P/N 79396 Fettsa Assembly	-	NA
		b. Detailed Drawing No. 79396	-	B
		c. welding Procedure specification WPS-A029 and WPS A-032.	-	G
		d. Visual Inspection Procedure No. (PS-3220	-	G
		e. Leak Test Report no. 9576	-	-
		(3) Cleaning Area		
		a. Shop Routing MOS, J.O. A16722, P/N 7008-166-0382.	-	NA

Document Types:

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|------------------|---------------------------------|
| 1. Drawing | 5. Purchase Order |
| 2. Specification | 6. Internal Memo |
| 3. Procedure | 7. Letter |
| 4. QA Manual | 8. Other (Specify-if necessary) |

Columns:

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| 1. Sequential Item Number |
| 2. Type of Document |
| 3. Date of Document |
| 4. Revision (If applicable) |

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1	4	Metal Bellows Corporation QA Manual	11-15-82	3
2	8	ASME N & NPT Symbol Authorizations	9-25-81	NA
3	8	Following inprocess control documents located in the areas noted		
		(1) Final and Inprocess Inspection Area.		
		a. Shop Routing MOS, J.O.-A16593, P/N 79506	-	NA
		b. Rejection Report No 06786	12-16-82	"
		c. Detailed Drawing No 79506	7-8-82	N/C
		(2) Nondestructive Examination Area.		
		a. Shop Routing MOS, J.O.-A16722, P/N 79396 for Hose Assembly	-	NA
		b. Detailed Drawing No. 79396	-	B
		c. welding Procedure specification WPS-A-029 and WPS A-032.	-	G H
		d. Visual Inspection Procedure No. (PS-3220	-	G
		e. Leak Test Report No. 9576	-	-
		(3) Cleaning Area		
		a. Shop Routing MOS, J.O. A16722, P/N 7008-166-0382.	-	NA

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1	2	TITLE/SUBJECT	3	4
3 (cont)	8 (cont.)	(4) Machine Shop		
		a. Shop Routing MOS, J.O. A-16923, P/N C79870, 4 dapter	-	NA
		b. Shop Routing MOS, J.O. A-16830, P/N C77605-5-96		
		Pipe Nipple	-	"
		(5) Bellows Roll Forming Area		
		a. Shop Routing MOS, J.O. A-16830, P/N C-77158-0230		
		-10, Bellows-Formed.	-	"
4	8	Following Data Package Records for ASME NPT Class 2		
		metal base assemblies for Street Webster / Nine Mile		
		Point Unit 2, P.O. NMP2-C07-IV-4, NBC J.O. 16856:		
		(1) Documentation Checklist	-	"
		(2) Asbuilt Tabulation of Materials	-	"
		(3) NPP-1 Data Reports	-	"
		(4) Certified Material Test Reports	-	"
		(5) Certified Weld Rod Test Reports	-	"
		(6) NDE Report	-	"
		(7) Proof Test / Hydrostatic Test Report	-	"
		(8) Certificates of Conformance	-	"

Document Types:

1. Drawing
2. Specification
3. Procedure
4. QA Manual
5. Purchase Order
6. Internal Memo
7. Letter
8. Other (Specify-if necessary)

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DOCUMENTS EXAMINED

1	2	TITLE/SUBJECT	3	4
4 (cont.)	8 (cont.)	(9) Installation Manual	—	NA
		(10) seismic certificate	12-10-81	"
		(11) Grade II Water Certificate	12-16-82	"
5	8	Stone & Webster Procurement Specification No. NMP-2-C07-IV; NBC J.O-12177/16856	8-13-79	"
6	3	Following MBC Procedures:		
		(1) CPS-3118 "... Penetrant Examination"	5-15-81	N
		(2) CPS-3187 "General Acceptance Procedure..." for hydrostatic testing.	—	E
		(3) CPS-3197, "Cleaning, Packaging & Shipping Procedure..."	5-13-82	F
		(4) CPS-3098, "General Cleaning Procedure..."	5-7-82	H
		(5) CPS-3208 "Minimum Wall Thickness... For Formed Bellows"	12-2-80	B
7	8	Shop Routing MOS's for following parts, Jo. 15137/16856:		
		(1) Ferrule, #N B74995	12-24-82	NA
		(2) Bellows Formed, DN C7722-9H-0360, Rev. D	11-25-82	—
		(3) Tube, #N B76435, Rev. D	2-25-82	—

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ControlDOCUMENTS EXAMINED

1	2	TITLE/SUBJECT	3	4
1	4	MBC's QA Manual Section 5.0 "Welding"	8-6-81	1
2	3	MBC's Procedure CPS-3043, "Weld Specification For Nuclear Components"	9-30-80	L
3	8	Shop Routing MGS for Inprocess J.O. A16722, Hose Assembly, Face Welding & Fillet Welding	-	NA
4	3	Inprocess WPS A-032 and PQR A-10032	5-7-81 4-20-82	H+G
5	8	Shop Routing MGS for J.O. 16856, PN D7760, Hose Assy	-	B
6	8	Welder Log History Cards for 6 welders	VARIOUS	NA
7	8	Welder Performance Qualification Records for 6 welders	VARIOUS	"
8	8	Weld Material Issue Cards for 4 different weld rods	VARIOUS	"
9	2	Following WPS's & PQR's		
		(1) WPS - A-029	5-7-81	G
		(2) PQR - A-10029	5-7-81	E
		(3) WPS - A-053	1-27-82	D
		(4) PQR - A-10053	1-27-82	C

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