EVALUATION RESEARCH CORPORATION

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COMANCHE PEAK RESPONSE TEAM

QUALITY INSTRUCTION FOR ISSUE SPECIFIC ACTION PLAN VII.C

INSTRUCTION NO.: QI-031 REVISION: O EFFECTIVE DATE: 8/22/85

REINSPECTION OF CONTAINMENT LINER AND TANK

STAINLESS STEEL LINER

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1.0 PURPOSE

This procedure provides the methods and accept/reject criteria for the performance of reinspection of the Containment Liners and Tank Stainless Steel Liners.

2.0 APPLICABILITY

This procedure applies to performance of an independent reinspection of the containment and tank stainless steel liners. It applies to the samples selected from the liner population defined in the liner population description.

3.0 REFERENCES

- 3.1 Memorandum QA/QC-RT-293, dated August 20, 1985, to A. A. Patterson, providing basis for inspection requirements, including specific sources for attributes and exclusions.
- 3.2 CPP-009, Rev. 0, Performance of Reinspections and Documentation Reviews.

4.0 GENERAL

Reinspections are performed and documented in accordance with established CPRT instructions. This procedure establishes the attributes and accept/reject criteria for the reinspection of the containment and tank stainless steel liners. Reference 3.2 addresses the method to perform and document the reinspection.

5.0 INSTRUCTION

Using the information below, perform the reinspections on the items in this population and document the results on the checklist (Attachment 6.1):

5.1 Containment Liner Reinspection

A 1 Base Material Local Contours

The containment liner base material located 10 feet either side of the sample weld, excluding penetrations, embedment plates, beam seats, and overlay plates, is to be reinspected for local contour deviations. The liner plate located within 10 feet of the sample weld between the liner and penetrations; embedments, beam seats, and overlay plates, is to be reinspected for local contour deviations.

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5.0 INSTRUCTION (Cont'd)

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The measurements are to be taken at areas of local contour deviations and at intervals sufficient to verify the base material meets the following:

The following local contour deviations are to be verified:

- a. A maximum 1-inch gap between the cylindrical liner or dome shell plate and a 6 feet long template curved to the required radius placed against the surface of the shell plate and not closer than 12 inches to the vertical weld seam when measuring horizontally or vertically for dome.
- b. A maximum 1 1/2 inch gap when the 6 feet long template is placed across the dome weld seams when measuring horizontally or vertically.
- c. A maximum 3/8 inch gap when a 15 inch long template curved to the required radius is placed horizontally and slid along the surface of the liner shell plate and not closer than 12 inches to the weld seam.
- d. A maximum 3/4 inch deviation from a 10 foot straight edge placed in the vertical direction between the horizontal weld seams.

A 2 Weld Seam Offset

The sample weld seam will be reinspected to verify that the maximum allowable offset in the final weld joints meet the following:

- a. For 3/8 inch plate the maximum offset shall be equal to or less than 3/32 inch.
- b. For 1/2 inch plate the maximum offset shall be equal to or less than 1/8 inch.
- c. For offsets within in the allowable tolerances the offset faired surface over the width of the finished weld shall be at least 3-to-1 taper.

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5.0 INSTRUCTION (Cont'd)

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A 3 Weld Seam Surface

The sample weld seam surface will be reinspected to verify the following:

- a. The weld seam surface shall be free from coarse ripples or grooves, overlap and abrupt ridges or valleys so that proper interpretation of radiographic and other nondestructive examinations could have been performed.
- Verify that undercut does not exceed 1/32-inch.
- c. The surface of the reinforcement of all butt welded joints may be flush with the base material or may have uniform crowns. Verify that the height of the reinforcement on each face of the seam does not exceed 3/32-inch.

If the base material local contours, weld seam offset, and weld seam surface meets the above criteria the checklist shall be marked accept. If the base material local contours, weld joint offset, or weld seam surface does not meet the above criteria the checklist shall be marked reject and the weld and rejectable item shall be identified by a deviation report.

5.2 Tank Stainless Steel Liner Reinspection

The weld seam surface will be reinspected to verify the following:

- B 1 Weld Seam Surface
 - a. The weld seam surface shall be free from coarse ripples or grooves, overlap and abrupt ridges or valleys so that proper interpretation of radiographic and other nondestructive examinations could have been performed.

5.0 INSTRUCTION (Cont'd)

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- Verify that undercut does not exceed 1/32-inch.
- c. The surface of the reinforcement of all butt welded joints may be flush with the base material or may have uniform crowns. Verify that the height of the reinforcement on each face of the seam does not exceed 3/32-inch.

If the weld seam surface meets the above criteria the checklist shall be marked accept. If the weld seam does not meet the above criteria the checklist shall be marked reject and the weld and rejectable item shall be identified by a deviation report.

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6.0 ATTACHMENT

6.1 Checklist

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CHECKLIST

	1	RECKLIST			
REINSPE OF CONT. Line: 6 Tank S.S. Line:	VERIFIC	ATION PEG	NO.	PAGT 1 OF _2	
WALITY INSTRUCTION	REINSPECTION			ו דואת []	
EQUIPHENT MARK/TAG NO.	DOCUMENTATION REVIEW		REVIEW	Соменон	
	VERIFICATION				
ATTRIBUTE	ACCEPT	REJECT	DATE	REHARKS	
A 1 Base Material Local Contours					
a. Max 1 inch gap between 6-foot template and plate					
b. Max 1 1/2 inch gap between 6 foot template and plate across weld seam					
c. Max 3/8 inch gap between 15 inch template and plate					
d. Max 3/4 inch deviation from 10 foot straight edge					
A 2 Weld seam offset					
 Max 3/32 inch off- set for 1/2 inch shell plate 					
b. Max 1/8 inch off- set for 1/2 inch dome plate					
PREPARED BY:		API	BOVED BT:		
DISCIPLINE ENGR. INSPECTED BY:	DATE		D DISCIPLIN	E ENGR. DATE	

CPP-007.1A. Revision 0

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Attachment 6.1 QI-031 Rev. 0 7. of 7 .

CHECKLIST (cont'd)

OPULATION DESC leinspt of Cont. Liner & Tank S.S. Liner	VERI	FICATION	PKG NO.	PAGE 2 OF 2	
ATTRIBUTE	VE	RIFICATIO			
	ACCEPT	REJECT	DATE	REMARKS	
c. Offset faired at least 3-to-1					
3 Weld Seam Surface					
a. Free of coarse ripples or grooves, overlaps, or abrupt ridges or valleys					
b. Undercut does not exceed 1/32 inch					
c. Flush with base material or has uniform crown. Reinforcement does not exceed 3/32 inch at each face.					
1 Tack SST Liners Reinspection					
 Weld surface free of coarse ripples or grooves, over- laps, and abrupt ridges or valleys. 					
b. Undercut does not exceed 1/32 inch					
c. Weld surface is flush with base material or has uniform crown. Reinforcement height does not exceed 3/32 inch at each face.					

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