

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013762**Date Inspected:** 03-May-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Xu Tao**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG COMPONENT**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Subhasis Bera was present during the times noted above for observations relative to the work being performed.

In process Inspection

Bay #14

This QA Inspector observed the following work in progress:

SMAW in the 4F position for the OBG Segment 12AW, weld No. SEG3004X-011. The welder is identified as #047864. ZPMC QC is identified as Mr. Zhong Yong Gang. The welding variables recorded by QC appear to comply with WPS-B-P-2114-FCM-1 .

SMAW in the 3F position for the OBG Segment 12AW, weld No. SEG3004X-037. The welder is identified as #066326. ZPMC QC is identified as Mr. Zhong Yong Gang. The welding variables recorded by QC appear to comply with WPS-B-P-2213-B-U2-FCM .

SMAW in the 3G position for the OBG Segment 12CW, weld No. SEG3006G-018. The welder is identified as #051348. ZPMC QC is identified as Mr. Zhong Yong Gang. The welding variables recorded by QC appear to comply with WPS-345-SMAW-3G(3F)-REPAIR .The weld repair report is identified as B-WR-12151.

FCAW in the 3G position for the OBG Segment 12BE, weld No. SEG3002F-001. The welder is identified as #214945. ZPMC QC is identified as Mr. Guo Xing Hai. The welding variables recorded by QC appear to comply

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with WPS-B-T-2233-B-U2-F.

SMAW in the 3G position for the OBG Segment 12CW, weld No. DP3045-001-092. The welder is identified as #047866. ZPMC QC is identified as Mr. Guo Pan. The welding variables recorded by QC appear to comply with WPS-B-P-2213-Tc-U4b-FCM-1.

During Quality Assurance random in-process observations of the assembly of Orthotropic Box Girder (OBG) segments 12AW and 12AE, this Quality Assurance Inspector (QA) discovered the following issues ZPMC has deviated from the approved Welding Procedure Specification (WPS) without the Engineers approval. The approved shop drawings specify Weld detail drawing WD30B as the applicable weld detail for the Partial Joint Penetration (PJP) "T" joints, joining the U-ribs to deck plates. WD30B identifies WPS-B-T-2342-U1 as the applicable WPS for these joints. The above mentioned WPS specifies two welding processes being used to weld these joints (Gas Metal Arc Welding (GMAW) for the root pass and Submerged Arc Welding (SAW) for the cover pass). ZPMC personnel used the Procedure WPS-B-T-2342-U5 (GMAW) for the root pass and WPS-B-T-2232-Tc-U4b-F, (FCAW) for the cover pass.

The welds are identified as follows:

Segment 12AW

-DP3045-001-001 & 002 (RS3031D to PL3108B)

-DP3043-001-009 & 010 (RS3031E to PL3106B)

Segment 12AE

-DP3007-001-001 & 002 (RS3001D to PL3005B)

-DP3005-001-009 & 010 (RS3005B to PL3001E)

OBG Segments 12AW and 12AE are located in Bay 14.

This QA Inspector generated an incident report for this date.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

No relevant conversations

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Bera,Subhasis	Quality Assurance Inspector
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Reviewed By:	Patterson,Rodney	QA Reviewer
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