

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-022456**Date Inspected:** 26-Dec-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:** Qiu Wen**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**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This Quality Assurance (QA) Inspector observed the following work in progress:

Bay 14

OBG Seg 13BW:

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3014S-052 [Vertical Plate (VP) 3013 to Side Plate (SP) 3106A, CJP weld; near Panel Points (PP) 120.5]. The welder is identified as 067993 and was observed welding in the 2G position. ZPMC QC was identified as Mr. Qiu Wen. The welding variables recorded by QC appeared to comply with WPS: B-P-2212-Tc-U4b-FCM-1.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3014H-232 [Floor Beam (FB) 3203A to K Plate (KP) 3018A, CJP weld at Panel Point (PP) 120.5]. The welder is identified as 201583 and was observed welding in the 1G position. ZPMC QC was identified as Mr. Qiu Wen. The welding variables recorded by QC appeared to comply with WPS: B-T-2231-ESAB.

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The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3014D-350 [Floor Beam (FB) 3212A to Vertical Plate (VP) 3013A, CJP weld at Panel Point (PP) 121.5]. The welder is identified as 045143 and was observed welding in the 1G position. ZPMC QC was identified as Mr. Qiu Wen. The welding variables recorded by QC appeared to comply with WPS: B-T-2231-ESAB.

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3014B-231 [Floor Beam (FB) 3217A to Vertical Plate (VP) 3013A, CJP weld at Panel Point (PP) 122]. The welder is identified as 045196 and was observed welding in the 4G position. ZPMC QC was identified as Mr. Qiu Wen. The welding variables recorded by QC appeared to comply with WPS: B-P-2214-Tc-U4b-FCM-1.

Repair welding of weld joint no: SEG3014P-080 [Edge Beam (EB) 3044A to Floor Beam (FB) 3217, complete joint penetration (CJP) weld at panel point (PP) 122]. The welder is identified as 066163 and was observed welding in the 3G position. Welding process was identified as Shielded Metal Arc Welding (SMAW). ZPMC QC was identified as Mr. Liu Fang. The welding variables recorded by this QC appeared to comply with Welding Procedure Specification (WPS): 345-SMAW-3G(3F)-FCM-Repair. Repair welding was done as per Critical Welding Repair Report (CWR): B-CWR 2293 Rev-0. Attached photograph provide additional detail.

OBG Seg 14W

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020K-007 [Sub Assembly (SA) plate 3409A to Longitudinal Diaphragm (LD) 3050A, CJP weld at panel point (PP) 127.3]. The welder is identified as 066239 and was observed welding in the 3G position. ZPMC QC was identified as Mr. Wang Xiang Pin. The welding variables recorded by QC appeared to comply with WPS: B-T-2233-ESAB.

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020Y-034 [Bottom Plate (BP) 3091A to Longitudinal Diaphragm (LD) 3051A, CJP weld at panel point (PP) 128.3]. The welder is identified as 067864 and was observed welding in the 2G position. ZPMC QC was identified as Mr. Wang Xiang Pin. The welding variables recorded by QC appeared to comply with WPS: B-P-2212-Tc-U4b-FCM-1.

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020AY-013 [Bottom Plate (BP) 3091A to Longitudinal Diaphragm (LD) 3051A, CJP weld at panel point (PP) 128]. The welder is identified as 047864 and was observed welding in the 2G position. ZPMC QC was identified as Mr. Wang Xiang Pin. The welding variables recorded by QC appeared to comply with WPS: B-P-2212-Tc-U4b-FCM-1.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020X-014 [Bottom Plate (BP) 3090A to Longitudinal Diaphragm (LD) 3049B, CJP weld at panel point (PP) 126.5]. The welder is identified as 066236 and was observed welding in the 2G position. ZPMC QC was identified as Mr. Wang Xiang Pin. The welding variables recorded by QC appeared to comply with WPS: B-T-2232-ESAB.

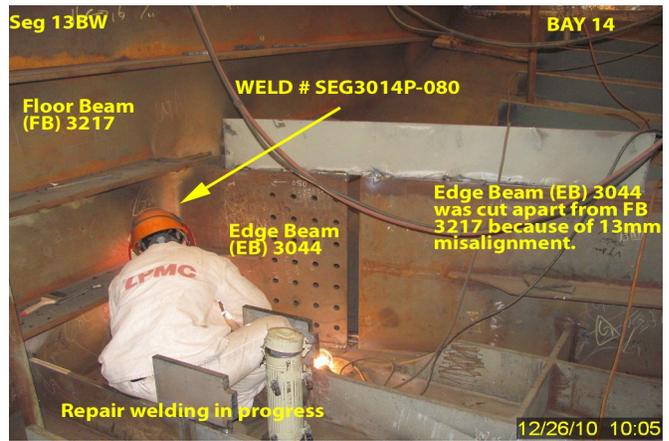
The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020X-011 [Bottom Plate (BP) 3090A to Longitudinal Diaphragm (LD) 3049A, CJP weld at panel point (PP) 125]. The welder is identified as 045276 and was observed welding in the 2G position. ZPMC QC was identified as Mr. Wang Xiang Pin. The welding variables recorded by QC appeared to comply with WPS: B-T-2232-ESAB.

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During random in process inspection this QA inspector observed that welding of weld joint no: SEG3020D-223 [Stiffener X8567N of Floor Beam (FB) 3343A to Longitudinal Diaphragm (LD) 3050A, CJP weld at panel point (PP) 128.3] and SEG3020D-227 [Stiffener X8567P of Floor Beam (FB) 3343A to Longitudinal Diaphragm (LD) 3050A, CJP weld at panel point (PP) 128.3]. The welder is identified as 066038 and was observed welding in the 1G position without use of run-off tab. This issue has been discussed with ZPMC CWI Mr. Qiu Wen and CT lead QA. Mr. Qiu Wen informed the ZPMC personnel to provide the run off tabs and then start the welding. There after this QA observed that the run off tabs were attached to the end of the weld joint while the welding work was being performed. Attached photograph provide additional detail.

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



Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

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 : 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Gaikwad,Umesh	Quality Assurance Inspector
Reviewed By:	Patterson,Rodney	QA Reviewer
