

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-017015**Date Inspected:** 19-Sep-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**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:**

CWI Inspectors: Mr. Lv Li Qing, Mr. Liu Hua Jie

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

OBG Segment Trial Assembly

This QA Inspector observed ZPMC welder Mr. Hua Linming, stencil 044515 used shielded metal arc welding procedure WPS-B-P-2214-TC-U4B-FCM-1 to make hold back weld SEG064A-021. This weld joins the side plate to the edge plate on the cross beam side of OBG segment 10CE. This QA Inspector observed a welding current of approximately 150 amps. This QA Inspector observed Mr. Hua Linming appeared to be certified to perform this welding and the electrodes were stored in a heated portable electrode storage container. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Ms. Chen Lin Li, stencil 053871 used shielded metal arc welding procedure WPS-B-P-2214-TC-U4B-FCM-1 to make hold back welds SEG064A-042 and SEG062A-012. These welds join the side plates to the edge plates on the bikepath side of OBG segments 10BE and 10CE. This QA Inspector observed a welding current of approximately 150 amps. This QA Inspector observed Ms. Chen Lin Li appeared to be certified to perform this welding and the electrodes were stored in a heated portable electrode

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storage container. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Xiaomin, stencil 046709 used shielded metal arc welding procedure specification WPS-345-SMAW-4G(4F)-FCM-Repair to complete repairs of hold back weld CA073-006 as directed on weld repair document B-CWR1938. This weld repair document was issued to perform repairs of ultrasonic rejections in the hold back weld between OBG segment 10BW edge plate and deck plate. This QA Inspector observed a welding current of approximately 170 amps, Mr. Wang Xiaomin appeared to be certified to make this weld and ZPMC QC is monitoring this welding. Following completion of the welding this QA Inspector observed ZPMC used an electric heater to maintain the post weld heat as required by the CWR document. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Xiaomin, stencil 046709 used shielded metal arc welding procedure specification WPS-345-SMAW-4G(4F)-FCM-Repair to complete repairs of weld OBW10C-002 as directed on weld repair document B-CWR1932. This weld repair document was issued to perform repairs of ultrasonic rejections in the weld between OBG segment 10BW and 10CW edge plates on the counterweight side of the OBG. This QA Inspector observed a welding current of approximately 140 amps, Mr. Wang Xiaomin appeared to be certified to make this weld and ZPMC QC is monitoring this welding. Following completion of the welding this QA Inspector observed ZPMC used an electric heater to maintain the post weld heat as required by the CWR document. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Chen Hong Ye, stencil 040270 used shielded metal arc process to make temporary alignment plate welds adjacent to the weld joint between OGB segments 10CW and 11AW. This QA Inspector measured a welding current of approximately 160 amps, the base material was preheated with a torch and Mr. Chen Hong Ye appeared to be certified to perform this welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC workers were performing heat straightening of OBG longitudinal diaphragm LD013-001 that had been distorted during welding of welds 001 through -012. ZPMC has issued heat straightening document HSR1(B)9053 to complete his work. Items observed on this date appeared to generally comply with applicable contract documents.



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Summary of Conversations:

See Above.

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 phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
