

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

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-009887**Date Inspected:** 11-Oct-2009**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 Fabrication**Summary of Items Observed:**

CWI Inspectors: Mr. Guy Yan Fei, Mr. Li Yang, Mr. Shen Fu You

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 BAY 2**

This QA Inspector observed ZPMC welder Mr. Li Guo Ping, stencil 045251 is using shielded metal arc process WPS-B-T-2112 to make OBG floor beam fillet weld FB3054-001-056. This QA Inspector observed a welding current of approximately 180 amps, the base material is clean where the tack welds were being made and Mr. Li Guo Ping is certified to make this weld. This QA Inspector observed the shielded metal arc welding electrodes are being stored in an electrically heated electrode storage container which is warm to the touch and it appears to be connected to the welding power supply cable. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhu Mingsong, stencil 204339 is using shielded metal welding process WPS-B-P-2114-1 to make OBG weld SSD11-9 at segment 8AW. This QA Inspector observed a welding current of 160 amps and Zhu Mingsong is certified to make this weld. Items observed by this QA Inspector appear to comply with project specifications.

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### OBG BAY 5

This QA Inspector observed ZPMC welder Ms. Gao Yulin, stencil 217805 is using flux cored welding process WPS-B-T-2232-TC-U5-F to make traveler rail fillet weld 10TR3-008-010. This QA Inspector observed a welding current of approximately 300 amps and 29.0 volts and ZPMC QC representative Mr. Zhong Hung Biao had previously recorded a welding current of 300 amps and 29.0 volts. This QA Inspector observed Ms. Gao Yulin is certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

### OBG BAY 9

This QA Inspector observed ZPMC welder Mr. Xiao Bianbin stencil 059440 is using gas metal arc welding procedure WPS-B-T-2342-U5(U-rib) to tack weld OBG closed ribs to deck plate DP3007-001. Prior to welding the QA Inspector observed another worker was using a feeler gauge to verify zero gap in the weld groove between the closed rib and the baseplate prior to making each tack weld. This QA Inspector observed a welding current of approximately 340 amps and 25.5 volts. Items observed on this date appeared to generally comply with applicable contract documents.

### OBG BAY 13 (outside)

This QA Inspector observed ZPMC welder Mr. Zhu Mingsong, stencil 204339 is using shielded metal welding process WPS-B-P-2114-1 to make OBG weld SSD11-9 at segment 8AW. This QA Inspector observed a welding current of 160 amps and Zhu Mingsong is certified to make this weld. . Items observed on this date appeared to generally comply with applicable contract documents.

### OBG BAY 14

This QA Inspector observed ZPMC welder Mr. Zhao Guanglin, stencil 044779 is using shielded metal arc welding procedure WPS-B-P-2213-TC-U4b-FCM to make weld SEG052-138. This QA Inspector observed ZPMC QC Inspector Mr. Guo Xing Hui has recorded a welding current of 189 amps. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder stencil 216083 is using shielded metal arc welding procedure WPS-B-P-2213-TC-U4b-FCM to make weld SSD11-009. This QA Inspector observed ZPMC QC Inspector Mr. Guo Xing Hui has recorded a welding current of 180 amps. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Wei, stencil 205097 is using shielded metal arc welding procedure specification WPS-B-P-2113 to tack weld diaphragm a plate to deck plate DP155-001. This QA Inspector observed a welding current of approximately 165 amps and Mr. Wang Wei is certified to make this weld.

This QA Inspector observed the shielded metal arc welding electrodes are being stored in an electrically heated electrode storage container which is warm to the touch. Items observed on this date appeared to generally comply with applicable contract documents.

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This QA Inspector observed ZPMC welder Mr. Wang Changming, stencil 047864 has used shielded metal arc welding procedure specification WPS-B-P-2114-FCM-1 to complete welds SP776-001-025 through 036. This QA Inspector observed ZPMC QC Inspector Mr. Liu Wan Wing has recorded a welding current of 154 amps. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Yang Changming, stencil 058242 has used shielded metal arc welding procedure specification WPS-B-P-2114-FCM-1 to complete welds SP497-001-070. This QA Inspector observed ZPMC QC Inspector Mr. Liu Wan Wing has recorded a welding current of 147 amps. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder stencil 067610 has used shielded metal arc welding procedure specification WPS-B-P-2114-FCM-1 to complete welds SP497-001-055. This QA Inspector observed ZPMC QC Inspector Mr. Liu Wan Wing has recorded a welding current of 156 amps. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Fu Peng, stencil 205718 has used shielded metal arc welding procedure specification WPS-B-P-2114-FCM-1 to complete welds SP497-001-055. This QA Inspector observed ZPMC QC Inspector Mr. Liu Wan Wing has recorded a welding current of 151 amps. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Ms. He Junrong, stencil 201215 is using flux corded arc welding procedure specification WPS-B-T-2132 to complete weld SSD13-078-004. This QA Inspector observed a welding current of approximately 260 amps and 28 volts and Ms. He Junrong is certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Ms. Wang Lanying, stencil 045265 has used submerged arc welding procedure specification WPS-B-T-2221-B-L2C-S-2 to make groove weld SEG071A-003. This QA Inspector observed Quality Control Inspector Mr. Liu Wan Wing has recorded a welding current of 588 amps and 31.8 volts. Items observed on this date appeared to generally comply with applicable contract documents.

### 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.

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<b>Inspected By:</b>	Dawson,Paul	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer

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