

**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-009895**Date Inspected:** 19-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. Li Yang, Mr. Li Zhi Jiang, Mr. Lv Li Qing

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. Rao Wei, stencil 049972 is using shielded metal arc welding procedure specification WPS-B-T-2112 to make OBG floor beam stiffener plate fillet tack weld FB3081-001-046. This QA Inspector observed a welding current of approximately 180 amps, the base material appears to be clean where the tack welds were being made, and Mr. Rao 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.

**OBG BAY 5**

This QA Inspector observed ZPMC welder Ms. Song Aiyong, stencil 215689, is using flux cored welding procedure WPS-B-T-2132-3 to make cross beam tack weld 201G-141. This QA Inspector observed a welding

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current of approximately 305 amps 29.5 volts and Ms. Song Aiyong 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. Ban Qiuyun, stencil 250353, is using flux cored welding procedure WPS-B-T-2132-3 to make cross beam tack weld 201G-14 . This QA Inspector observed a welding current of approximately 260 amps 31.5 volts and Ms. Ban Qiuyun appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Bay 13

This QA Inspector observed ZPMC Mr. Hong Liang, stencil 200113 is using shielded metal welding process WPS-345-SMAW-4G(4F)FCM-Repair to make OBG repair weld SEG1068A-031 R1. This QA Inspector measured a welding current of approximately 170 amps and Mr. Hong Liang appears to be certified to make this weld 4G (overhead) weld. The weld repair document does not appear to have had any number assigned to the upper right hand corner of the document. This QA Inspector observed the shielded metal arc welding electrodes are being stored in an electrically heated electrode storage container with a temperature that is approximately ambient. This QA inspector felt the welding electrodes inside the storage container and they are slightly warm to the touch. Mr. Hong Liang connected the storage container to the welding power supply cable. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Bay 14

This QA Inspector observed ZPMC welder stencil 215553 is using the shielded metal arc welding process WPS-B-T-4213-TC-U4b-2 to make OBG weld SEG056E-115. This QA Inspector observed ZPMC QC Inspector Mr. Guo Xing Hui has recorded a welding current of 170 amps. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Ms. Wang Min, stencil 600132 is using submerged arc welding procedure specification WPS-B-T-2221-B-L2C-S-2 to make groove weld SEG0066\*-008. This QA Inspector observed Ms. Wang Min appears to be certified to make this weld. This QA Inspector observed a welding current of approximately 600 amps and 32.0 volts. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Li Xian You, stencil 047866 has recently used flux cored welding process WPS-B-T-2232-TC-U4b5-F to make OBG weld SEG055C-025. This QA Inspector observed ZPMC QC inspector Mr. Xu Tao has recorded a welding current of 207 amps and 24.6 volts. This QA Inspector observed Mr. Li Xian You appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Hi Hanbi, stencil 202122 has recently completed using flux cored welding process WPS-B-T-2232-TC-U4b5-F to make OBG weld SEG055B-033. This QA Inspector observed ZPMC QC Inspector Mr. Xu Tao has recorded a welding current of 209 amps and 24.7 volts. This QA Inspector verified Mr. Hi Hanbi appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

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QC Inspector Mr. Xu Tao informed this QA Inspector that ZPMC welder Mr. Yang Changming, stencil 058242 has used shielded metal arc welding procedure specification WPS-B-P-2214-TC-U4b-FCM-1 to complete weld SEG057A-024 in the 4G (overhead) position. This QA Inspector observed ZPMC QC Inspector Mr. Xu Tao has recorded a welding current of 147 amps. Items observed on this date appeared to generally comply with applicable contract documents.

QC Inspector Mr. Xu Tao informed this QA Inspector that ZPMC welder Mr. Tian Zhaoquan, stencil 045246, has used shielded metal arc welding procedure specification WPS-B-P-2214-TC-U4b-FCM-1 to complete weld SEG057A-026 in the 4G (overhead) position. This QA Inspector observed ZPMC QC Inspector Mr. Xu Tao has recorded a welding current of 151 amps. 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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