

**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-018784**Date Inspected:** 27-Nov-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 Inspector: Mr. Bao Qian

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 14**

This QA Inspector observed ZPMC welder Mr. Sun Lingling, stencil 048047 used shielded metal arc welding procedure specification WPS-345-FCAW-2G(2F)-Repair to make OBG segment 13AE weld repairs of visual rejections of various welds between longitudinal diaphragms to deck plate DP3102-001. This QA Inspector observed a welding current of approximately 140 amps, a torch was used to preheat the base materials and Mr. Sun Lingling appeared 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. Dan Deyin, stencil 044795 used flux cored welding procedure WPS-B-T-2233-TC-U5B-F to make OBG segment 13AE weld SEG3007L-014. This weld joins an OBG longitudinal diaphragm plate a floor beam. This QA Inspector observed ZPMC QC had recorded a welding current of 210 amps and 25.0 volts. This QA Inspector observed that Mr. Dan Deyin appeared to be certified to make this weld. 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 Quanlin stencil 066746 used flux cored welding procedure specification WPS-B-T-2232-TC-U5-F to make OBG segment 13AE weld SEG3007G-049. This QA Inspector observed a welding current of approximately 330 amps, 32.0 volts, the base materials were preheated with an electric heater and Mr. Wang Quanlin appeared 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. Zhang Xiang Rong, stencil 066763 used flux cored welding procedure specification WPS-B-T-2232-TC-U5-F to make OBG segment 13AE weld SEG3007J-047. This QA Inspector observed ZPMC has recorded a welding current of 325 amps, 30.7 volts, the base materials were preheated with an electric heater and Mr. Zhang Xiang Rong appeared 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. Ye Bing stencil 066733 used flux cored welding procedure specification WPS-B-T-2232-TC-U5-F to make OBG segment 13AE weld SEG3007L-045. This QA Inspector observed ZPMC has recorded a welding current of 305 amps, 31.0 volts, the base materials were preheated with an electric heater and Mr. Ye Bing appeared 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. Liu Xiaolin, stencil 067079 used flux cored welding procedure specification WPS-B-T-2233-TC-U5-F to make OBG segment 13AE welds SEG3007Y-328. This QA Inspector observed ZPMC has recorded a welding current of 208 amps, 25.6 volts and the base materials were preheated with an electric heater. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhang Quin Quan, stencil 044774 used flux cored welding procedure WPS-345-FCAW-2G(2F)-Repair-1 to make OBG segment 13AE weld repair SEG3007F-017 per weld repair document B-WR17556. This weld had been rejected by ZPMC personnel during ultrasonic inspections. This QA Inspector observed a welding current of 315 amps and 30.5 volts. This QA Inspector observed that Mr. Zhang Quin Quan appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

See the photograph below for additional information.

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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 James Devey +8615000026784, 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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