

**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-008812**Date Inspected:** 26-Aug-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1845**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 715**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. Zhu Tian Shu, Mr. Zhao Chen Sun,

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 9**

ZPMC issued "Inspection Notification Sheet" number 4070 informing QA that ZPMC has completed visual and magnetic particle inspections of bolt hole repairs on traveler rail bracket TR44-PP9, reference critical weld repair B-CWR612. This QA Inspector performed random visual and magnetic particle inspections of the top and bottom weld surfaces these two welds and items observed by this QA Inspector appear to comply with AWS D1.5 requirements. For additional information on these inspections see the TL6028 Magnetic Particle Test Report.

**OBG Bay 2**

This QA Inspector observed ZPMC welder Ms. Pi Li Juan, stencil 062438 is using welding procedure specification WPS-B-T-2132-3 to make flux cored weld FB3069-003-003. The QA Inspector observed ZPMC Quality Control personnel monitoring the base material temperature and other welding attributes. This QA Inspector measured a welding current of approximately 300 amps and 29.3 volts and Ms. Pi Li Juan is certified to

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## WELDING INSPECTION REPORT

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make this weld. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

This QA Inspector observed ZPMC welder Mr. Lv. Feng Yin, stencil 205676 is using welding procedure specification WPS-B-T-2132-3 to make flux cored weld FB3073-003-003. The QA Inspector observed ZPMC Quality Control personnel monitoring the base material temperature and other welding attributes. This QA Inspector observed ZPMC QC has recorded a welding current of approximately 310 amps and 30.8 volts. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

OBG Bay 6

This QA Inspector observed ZPMC welder Mr. Liu Shouhai, stencil 066456 is using shielded metal arc procedure WPS-B-T-2112 to make shear link weld WDI-A305-65M1-9A. This QA Inspector measured a welding current of 230 amps. This QA Inspector observed Mr. Liu Shouhai is certified to make this weld. It appears that ZPMC personnel had used electric heaters to preheat the base material where the weld is to be made. 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 by this QA Inspector appear to comply with project specifications.

This QA Inspector observed ZPMC welder Mr. Wei Jun, stencil 067707 is using shielded metal arc procedure WPS-B-T-2112-TC-U5B to make shear link weld WDI-A305-77M1-1. This QA Inspector measured a welding current of 220 amps. This QA Inspector observed Mr. Wei Jun is certified to make this weld. It appears that ZPMC personnel had used electric heaters to preheat the base material where the weld is to be made. 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 by this QA Inspector appear to comply with project specifications.

### **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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