

**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-009265**Date Inspected:** 29-Sep-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. Sun Bo, Mr. Li Zhi Jiang

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 1**

ZPMC issued "Inspection Notification Sheet" number 4322 informing QA that ZPMC has completed visual and magnetic particle inspections of counterweight welds on CW002A-PP104, CW002B-PP104 and CW001-PP072. This QA Inspector observed ZPMC has marked near the counterweight welds that ZPMC has performed magnetic particle inspections of 25% length of the counterweight welds that were listed on the "Inspection Notification Sheet". This QA Inspector performed random visual and magnetic particle inspections of the following welds: CW002B-PP104-4, -5, -6, -7, -8, -11, -16, -19, -20, -23; CW002A-PP104-2, -3, -9, CW001-PP072-1, -127, -128, -129, -130, -131, -132 and -133. Weld CW002A-PP104-9 visually appears to have weld overlap and undercut on the top end of the weld and all the other welds appear to comply with AWS D1.5 visual and magnetic particle inspection requirements. For additional information on these inspections see the TL6028 Magnetic Particle Test Report.

**OBG BAY 2**

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## WELDING INSPECTION REPORT

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This QA Inspector observed ZPMC welder Ms. Zou Dianqin, stencil 250050 has completed submerged arc welding procedure specification WPS-B-T-2221-B-L2C-S-2 to make groove weld SEG-061\*-009 attaching OBG deck plate DP290-001 to deck plate DP128-001. This QA Inspector observed ZPMC QC Inspector Mr. Zhan Hai Feng has recorded a welding current of 560 amps and 31.0 volts. This QA Inspector observed that Ms. Zou Dianqin 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 Chaili stencil 045203 has used flux cored welding procedure WPS-B-T-2132-3 to make OBG floor beam weld FB3089-001-029. This QA Inspector observed that earlier in the shift QC Inspector Mr. Zhang Hai Feng recorded that Ms. Wang Chaili had a welding current of 310 amps and 30.6 volts. This QA Inspector observed that Ms. Wang Chaili 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. Tang Ke, stencil 062305 is using flux cored welding procedure WPS-B-T-2342-U5(U-rib) to tack closed ribs to deck plate DP3027-001. This QA Inspector measured a welding current of approximately 360 amps and 25.0 volts. Last week this QA Inspector asked ZPMC welder Mr. Tang Ke to show his ZPMC issued welder identification card which identifies which welding processes and positions he is certified to utilize for welding of Caltrans bridge components and Mr. Tang Ke was not able to produce a welder identification card. Today Mr. Tang Ke indicated to this QA Inspector that he still did not have a ZPMC welder identification card. 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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