

**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-005281**Date Inspected:** 11-Jan-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**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:**

CWIs: Mr. Xu Xun Ping, Mr. Zhao Chen Sun, Mr. Sun Wei, Mr. Sun Tiyu

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. The QA Inspector observed the following:

**OBG Bay 9**

This QA Inspector observed ZPMC welder Mr. Jiang Ting Quang, stencil 062265 is using the flux cored welding procedure WPS B-T-2232-TC-U5F to make repairs to OBG deck plate DP615-001 weld #1. Prior to welding the QA Inspector observed the base material had previously been preheated using electrical heater elements. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

**Bay 6**

This QA Inspector performed random final visual and ultrasonic (UT) inspections of approximately 25% length of tower double diaphragms ESD1-DPS3A-14 Weld 2, ESD1-DPS3A-14 Weld 7, SSD1-DPSA3-6 Weld3, SSD1-DPSA3-6 Weld 5, SSD1-DPSA3-9 Weld 6, SSD1-DPSA3-9 Weld10. These welds have previously been tested and accepted by ZPMC Quality Control personnel. The QA Inspector observed the welds that were ultrasonically inspected by this QA Inspector appears to comply with AWS D1.5 UT requirements. This weld is

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# WELDING INSPECTION REPORT

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listed on ZPMC Notification of Witness Inspection document 001825. For additional information on this inspection see the TL6027 Ultrasonic Test Report.

This QA Inspector observed ZPMC welder Mr. Han Guodong, stencil 062259 is using the flux cored welding procedure WPS-B-T-2132-3 to fillet weld tower double diaphragm ESD1-DPSA3-15 weld 8. Prior to welding the QA Inspector observed the base material had been preheated using electrical heaters. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

## OBG Bay 7

This QA Inspector observed ZPMC welders Mr. Li Shuliang, stencil 048801 and Mr. Sun Tiyu, stencil 0544859, using an overhead gantry to perform Flux Core Arc Welding (FCAW) of stiffener to side plate welds designated as SP206-005 using WPS B-T-2132-3. Prior to welding the QA Inspector verified the base material had been preheated using electric heating elements. This FCAW appears to be progressing in compliance with project specifications.

This QA Inspector observed ZPMC welder Mr. Wang Hongbo, stencil 203206 is using shielded metal arc welding procedure WPS-B-T-2112 to tack weld OBG deck plate DP774-001 welds. Prior to welding the QA Inspector observed the base material was preheated using a torch. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

This QA Inspector observed ZPMC welder Mr. Lu Lianfeng, stencil 051141 is using shielded metal arc welding procedure WPS-B-T-2112 to tack weld OBG deck plate DP659-001 welds. Prior to welding the QA Inspector observed the base material was preheated using a torch. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

This QA Inspector observed ZPMC welder Mr. Han Hongwen, stencil 200149 is using flux cored welding procedure WPS-B-T-2112 to tack weld OBG side plate SP631-001 complete joint penetration splice weld #21. Prior to welding the QA Inspector observed the base material was preheated using a torch. The QA Inspector observed ZPMC QC has recorded a welding current of 304 amps, 30.1 volts and a welding travel speed of 302 mm per minute. Items observed by this QA Inspector appear to be progressing in compliance 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 Serge Sinevod phone: 134-8257-0045 , 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>	Clifford,William	QA Reviewer

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