

**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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001665**Date Inspected:** 21-Feb-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 600**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Fu Yu Hong**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 Deck panels**Summary of Items Observed:**

CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the fabrication scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

**Production Monitoring test (PMT) and Fabrication**

The QA inspector performed random fit-up verifications to the PMT coupons and to the deck panel DP-016-001 at the junction of the U-ribs to deck plate. The QA found that U-ribs fit-up appeared to be in compliance with the contract documents.

The QA inspector witnessed ZPMC's welding operations at the PMT # 8 at the junction of the 800 mm U-ribs and the deck plate.

ZPMC started welding at approximately 1029 hours. The QA inspector observed welding operators Yuan Feng Chuan welder ID # 059355, Chen Jie, ID # 059468, Gao Xin Dong ID # 059361 and Jian Ting Guang ID # 062265 performing welding operations on the root pass weld joints # 1 thru 4 respectively with the automatic Gantry Lincoln machine with the gas metal arc welding (GMAW) process on the metal transferring with spray transfer mode following the (WPS)WPS-B-T-2342-U1( Urib).

ABF representative Mr. Warren Buehler, ZPMC representatives Mr. Shen Xue Jun and Caltrans representatives Mr. Robert Cuellar, Timothy McClendon, Mr. Alistair Melville, and Mr. Bruce Berger were present at the OBG deck panels fabrication shop.

ZPMC certified welding inspector Chen Xi performed visual weld inspection to the root pass. ZPMC found that welds were in accordance with the contract documents.

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## WELDING INSPECTION REPORT

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The welding operators welding on the production deck panel DP-016-001 were as follows: Weld joint (WJ) # 1, Yuan Fen Chuan, WJ # 2 , Chen Jie, WJ # 3 and 5 Gao Xin Dong and WJ # 4 and 6, Jiang Tin Guang, and the control panel operator was Shi Jia Qiang.

Caltrans QA Inspector performed ultrasonic testing (UT) of the production monitoring test that was welded on 02-20-2008 for the deck panels DP-014-001 and DP-014-002. The QA inspector found that the areas tested appeared to be in general compliance with the contract documents, however areas to be scanned have coating by the weld joint that were not removed prior ZPMC's UT verifications. The QA inspector had a conversation with ABF representative Warren Buehler. The QA inspector informed that ZPMC failed to remove the coating as required by their UT procedure # ZPQC-UT-02. Mr. Warren Buehler disagreed. Mr. Warren Buehler stated that ZPMC made the UT procedure in similar circumstance and the coating reading were close to Zero mils. Mr. Warren Buehler relayed that ABF paint specialist said that the remaining paint in the scanning area is not considered paint because he barely have reading with their paint thickness gage. The QA inspector informed Caltrans representatives John Kinsey and Robert Cuellar of ABF's position. Mr. Robert Cuellar relayed that ABF was warned about this non compliant condition and if ZPMC refuse to remove the coating on the scanning area. The QA inspector needed to raise the issue with an incident report.

### Summary of Conversations:

As noted 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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Acuna,Alfredo	Quality Assurance Inspector
<b>Reviewed By:</b>	Cuellar,Robert	QA Reviewer

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