

**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-002038**Date Inspected:** 09-Jan-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1500**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 100**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Fu Yuhong**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 Components and Tower Mock-Ups**Summary of Items Observed:**

: The Caltrans Quality Assurance Inspector (QA), M. Paul Stovall, was present at Zhenhua Port Machinery Company (Z. P. M. C.), Changxing Island, Shanghai, China for the purpose of monitoring the the fabrication of the SAS/San Francisco/Oakland Bay Bridge.

Z. P. M. C. personnel checked the plumbness of the 77-meter Mock-Up, personnel rotated, and relocated the Mock-Up into a new position to continue work on other areas. Z. P. M. C. personnel, ground on weld numbers MUSA-SA95-(66 & 67), MUSA-SA95-3, MUSA-SA95-62. Weld number MUA-MA1-D/F-16B, was welded using Welding Procedure Specification (WPS)-B-T-2221-C-U2b-S Z. P. M. C., the is welder Xia Yenglin—048882. The QA Inspector recorded the following readings at various times: 719 amps, 31.2 volts; and 722 amps, 31.2 volts.

114-meter Mock-Up-(lower)- Z. P. M. C. , Welders' Zhou'ai Tan--048786, Liu Shouhai—066456, welded Skin B to Skin C, weld number MUC-E2-9 and MUC-E2-5; 114-meter Mock-Up(upper)- MUC-E2-(5,6,9,10). The QA Inspector Magnetic Particle Tested, weld number MUC-E2-(25 & 27), 10%, it complied with the contract documents.

Z. P. M. C., personnel were observed grinding the faying surfaces of various WT stiffeners prior to being welded.

Z. P. M. C., Welder He Yumeni—048625, tack welded stiffener on Side Plate (SP)023-01-(017-018).

Z. P. M. C., QC personnel had previously Magnetic Particle Tested, the cover pass on SP077-01-018, then, after

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undercut was observed by another QA Inspector, ground the weld. When the QA Inspector inquired as to whether or not another Magnetic Particle Test (MT) would be performed after the excavation, QC stated that it had not been excavated, due to carbon arc not being used. The QA Inspector told Z. P. M. C., QC personnel that grinding was a method of excavation. They then stated that it would be done. Z. P. M. C., Welder Sun Tiyu—054459, using WPS-B-T-2132-2, tacked WT stiffeners onto SP048-01-(018 & 019).

### **Summary of Conversations:**

Spoke with Z. P. M. C., QC personnel regarding the MT of the cover weld on SP077-01-018, in regards to it being ground “after” it was MT’d, and whether or not it would be MT’d again.

### **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>	Stovall,Paul	Quality Assurance Inspector
<b>Reviewed By:</b>	Cochran,Jim	QA Reviewer

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