

**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-011794**Date Inspected:** 04-Feb-2010**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:** Tower**Summary of Items Observed:**

CWI Inspector: Mr. Liu Zhong An

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:

## Tower Bay 10

This QA Inspector observed ZPMC welder Mr. Chen Ren Zhi, stencil 058087 is using shielded metal welding process WPS-345-SMAW-2G(2F)-Repair-1 to add weld material to extend the length of tower splice plate SA3-433 tag B2-B1. This QA Inspector observed a welding current of approximately 215 amps and Mr. Chen Ren Zhi appears to be certified to make this weld. This QA Inspector observed the base material appears to have been preheated with an electrical heater prior to welding and ZPMC QC Inspector Mr. Li Peng Fei is monitoring the base material to insure the base material temperature does not exceed 230 degrees Celsius. This QA Inspector observed the shielded metal arc welding electrodes are being stored in an electrically heated electrode storage container. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Sun Guang Ping, stencil 50289 is using shielded metal welding process WPS-345-SMAW-2G(2F)-Repair-1 to add weld material to extend the length of tower splice plate SA3-433 tag N3-D8. This QA Inspector observed a welding current of approximately 210 amps and Mr. Sun

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## WELDING INSPECTION REPORT

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Guang Ping appears to be certified to make this weld. This QA Inspector observed the base material appears to have been preheated with an electrical heater prior to welding and ZPMC QC Inspector Mr. Li Peng Fei is monitoring the base material to insure the base material temperature does not exceed 230 degrees Celsius. This QA Inspector observed the shielded metal arc welding electrodes are being stored in an electrically heated electrode storage container. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Bai Wen Ming stencil 040434 is using flux cored welding procedure WPS-B-T-4333-TC-P4-F-1 to make weld SSTL4-1H/L-98. This weld is located inside South tower lift 4. This QA Inspector observed that ZPMC QC CWI Inspector Mr. Liu Zhong An is monitoring this welding. This QA inspector measured a welding current of approximately 280 amps and 32 volts, Mr. Bai Wen Ming appears to be certified to make this weld and the base material is being heated an electrical heating element located on the exterior of the tower to and during completion of the weld. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

This QA Inspector observed QC CWI Inspector Mr. Liu Zhong An has documented that ZPMC welder Mr. Liu Xie stencil 066236 has recently used flux cored welding procedure WPS-B-T-4333-TC-P4-F-1 to complete weld SSTL4-1H/L-33. This weld is located inside South tower lift 4. This QA Inspector observed that ZPMC QC CWI Inspector Mr. Liu Zhong An has recorded a welding current of 316 amps and 31.8 volts. This QA Inspector observed that Mr. Liu Zhong An appears to be certified to make this weld and the base material had been heated with an electrical heating element located on the exterior of the tower to and during completion of the weld. 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 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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