

**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-007619**Date Inspected:** 16-Jun-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 and Tower Fabrication**Summary of Items Observed:**

CWI Inspectors: Mr. Zou Liu Hei, Mr. Shen Fu You, Mr. Lin Dong Liang, Mr. Wang Chuangjing

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:

Prior to Caltrans QA Inspectors' concurring with issuance of OBG deck plate closed rib green tag releases a review of the ultrasonic inspection database is performed to verify all closed rib tack weld repair locations have been ultrasonically accepted. Today this QA Inspector, Mr. Paul Dawson, performed data entry of ultrasonic inspection information from the field generated Ultrasonic inspection data sheets onto the common drive computer database for the following OBG deck panels: DP101-001, DP128-002, DP154-001, DP155-001, DP209-001, DP237-001, DP262-001, DP312-001, DP344-002, DP371-001, DP372-001, DP397-001, DP398-001, DP424-001, DP399-001, DP425-001 and DP452-001.

Tower Bay 11

The QA Inspector observed ZPMC welder Ms. Xu Xiushui, stencil 040489 using submerged arc welding procedure specification WPS-B-T-2221-B-U3C-S-2 to make groove weld SSD1-FESA4-1C/C-43B. The QA Inspector observed a welding current of approximately 660 amps and 31.20 volts. The base material temperature appears to be between 110°C and 230°C. Items observed by the QA Inspector appear to comply with project

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# WELDING INSPECTION REPORT

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specifications.

The QA Inspector observed ZPMC welder Mr. Yang Hong Jun, stencil 070254 is using flux cored welding procedure WPS-B-T-2231-B-U3C-S-2 to make root pass weld SSD1-FCSA4-2C/C-2A. The QA Inspector observed a welding current of approximately 230 amps and 31.9 volts and the base material temperature appears to be between 110°C and 230°C. The QA Inspector observed Quality Control (QC) personnel monitoring this welding. Items observed on this date appeared to generally comply with applicable contract documents.

Tower Bay 10

The QA Inspector observed ZPMC welder Ms. Zhang Lingling, stencil 207746, is using submerged arc welding procedure specification WPS-B-T-2221-C-U2C-S to make groove weld SSDI-FESA4-1A/F-7A. The QA Inspector observed Quality Control personnel monitoring the base material temperature and other welding attributes. This QA Inspector measured a welding current of 675 amps and 31.0 volts. Items observed on this date appeared to generally comply with applicable contract documents.

The QA Inspector observed ZPMC welder Ms. Liu Zhen Ping, stencil 250252, is using submerged arc welding procedure specification WPS-B-T-2221-C-U2C-S to make groove weld SSDI-FESA4-1A/F-9A. The QA Inspector observed Quality Control personnel monitoring the base material temperature and other welding attributes. This QA Inspector measured a welding current of 675 amps, 31.0 volts and a welding travel speed of 490 mm per minute. Items observed on this date appeared to generally comply with applicable contract documents.

The QA Inspector observed ZPMC welder Mr. Feng Leilei, stencil 052889 is using welding procedure specification WPS-B-T-4211-B-U3b-2 to complete shielded metal arc tack weld NSD1-FCSA4-1A/C-87A. The QA Inspector observed that the base material where the tack weld was made had been preheated to a temperature above 110 degrees Celsius and a ZPMC QC Inspector is monitoring this welding. The QA Inspector measured a welding current of approximately 155 amps. 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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