

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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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-004451**Date Inspected:** 28-Oct-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**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:** Wang Jie**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 Assembly**Summary of Items Observed:**

This report serves to document the events occurring on this date at the following location. Caltrans Quality Assurance (QA) Inspector Robert Vatcher 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 Assembly Bay II

Mid bay-

QA observed heat straightening being performed on deck panels DP160A & DP193A per ZPMC Heat Straightening procedure HSR1 (B)-3137. Deflection was noted at 3 millimeters

QA observed the in process joining of edge plate connections of CA-23-004 to SP422 by the FCAW process. QA measured welding parameters in accordance with welding procedure specification WPS-B-T-2231-B-U4B-F utilizing 4.0 mm diameter electrode by qualified welder Jin Chengmao 058551. Measured amperage at 308.0. Voltage at 31.2, travel speed at 295 mm per minute. ZPMC QC personnel Wang Jie was present for this welding evolution. QA measured preheat to below 40 degrees Celsius however welding had not been conducted in that area.

QA observed SMAW welding operation at CA18A CSD2 PP031.5-xxx by qualified welder Hu Yacheng 049339. QA immediately witnessed that no wire brush was in the vicinity of the welder and brought this issue to the

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attention of ZPMC QC representative Wang Jie who directed the welder to appropriate the proper tool for his operation.

5CW- QA observed qualified welding operator He Junrong welding with the FCAW method at SSD14A Panel Point 035 for temporary lifting lugs. QA observed that a potential situation involving welding over rust was present. ZPMC QC representative Wang Lu was available and apprised of the situation. Mr. Lu mentioned that these were temporary attachments and that welding over rust or corrosion was not important. QA brought to the attention of Mr. Lu that diluting weld metal contaminated with rust and detritus into the base material was an issue and would be defined in an incident report and sub sequentially a formal non conformance report. Mr. Lu mentioned that they would clean the joint prior to depositing any further weld metal.

### **Summary of Conversations:**

No relevant conversations this date.

### **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 Ady Velasco 138-1694-2685, who represents the Office of Structural Materials for your project.

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**Inspected By:** Vatcher,Robert

Quality Assurance Inspector

**Reviewed By:** Cuellar,Robert

QA Reviewer