

**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-012831**Date Inspected:** 19-Mar-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:** OBG**Summary of Items Observed:**

CWI Inspectors: Mr. Geng Wei, Mr. Huang Min

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:

**OBG BAY 6**

This QA Inspector observed ZPMC welder Mr. Li Yuan Zheng, stencil 217185 has recently used flux cored welding procedure WPS-B-T-2231-TC-U4b-1 to make welds USPL1-400-001 and USPL1-400-002. This QA Inspector observed QC CWI Mr. Huang Min has recorded a welding current of 300 amps and 29.5 volts. This QA Inspector verified Mr. Li Yuan Zheng appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Li Shu Qiang, stencil 053609 has recently used flux cored welding procedure WPS-B-T-2231-TC-U4b-1 to make welds USPL1-400-001 and USPL1-400-002. This QA Inspector observed QC CWI Mr. Huang Min has recorded a welding current of 300 amps and 30.5 volts. This QA Inspector verified Mr. Li Yuan Zheng appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

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### OBG Bay 13

This QA Inspector observed ZPMC appears to have performed air carbon arc gouging of several traveler rail welds and two employees are grinding the gouged areas. No other personnel appear to be working on Caltrans OBG segments in OBG Bay 13.

### OBG Bay 14

This QA Inspector observed ZPMC welder Mr. Sun Gusong, stencil 058592 is using shielded metal arc welding procedure specification WPS-B-P-2213-B-U2-FCM to tack weld various plates between side plates SP3003C and SP3003D in the 3G (vertical) position. This QA Inspector observed a welding current of approximately 150 amps. This QA Inspector observed Mr. Sun Gusong appears to be certified to make this weld and the welding electrodes are being stored in a heated portable electrode storage oven. Later in the shift this QA Inspector observed ZPMC welder Mr. Sun Gusong, stencil 058592 is using shielded metal arc welding procedure specification WPS-B-P-2213-FCM to complete tack weld SEG3002K-002 at panel point PP113. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Wei, stencil 205097 is using shielded metal arc welding procedure specification WPS-B-P-2113 to tack weld various plates to OBG segment 12CW, segment 3006S, panel point 115, deck plate DP3065-001. This QA Inspector observed the base material had been preheated with a torch, a welding current of approximately 165 amps and Mr. Wang Wei is certified to make this weld. This QA Inspector observed the shielded metal arc welding electrodes are being stored in an electrically heated electrode storage container which is warm to the touch. Items observed on this date appeared to generally comply with applicable contract documents. See the photograph below for additional information.

### Yard, North of OBG Bay 13

This QA Inspector observed ZPMC welder Mr. Wang Zhenbing, stencil 216086 is using the shielded metal arc welding process to perform various weld repairs to OBG segment 9CE, panel point 77, corner assembly stiffener plate welds. During the past several weeks this QA Inspector has observed no ZPMC personnel appear to have been performing welding near this location and no ZPMC QC personnel appear to be assigned to monitor activities in this location. As this QA Inspector walked toward this OBG segment one of the workers appeared to alert ZPMC welder Mr. Wang Zhenbing that this QA Inspector was near this segment and Mr. Wang Zhenbing stopped welding. Mr. Wang Zhenbing appears to be certified to make this weld and a second worker was holding an acetylene torch near where this welding had taken place. This QA Inspector monitored this general location for approximately thirty minutes and Mr. Wang Zhenbing did not appear to perform any additional welding and no ZPMC QC welding Inspectors were observed to be near this location. See the photographs below for additional information.

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# WELDING INSPECTION REPORT

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## 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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**Inspected By:** Dawson,Paul  
**Reviewed By:** Carreon,Albert

Quality Assurance Inspector  
QA Reviewer

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