

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

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-000910**Date Inspected:** 21-Nov-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2330**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Zhi Jiang**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 Floor Beams and Stiffener Plates**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) inspector, Scott Croff, was present at Zhenhua Port Machinery Company, Ltd (ZPMC) to observe the scheduled mock up construction and production construction of the SAS Superstructure.

Bay 7: The QA inspector observed ZPMC personnel using submerged arc welding (SAW) on parts Orthotropic Box Girder components #FB013-E023 and FB013-E024. The QA inspector noted that 2 SAW machines are being operated on welds # 002 and 020, respective for each floor beam component. The QA inspector observed that several ZPMC Quality Control (QC) inspectors are present. The QA inspector made random observations of the work in progress at FB013-E023, weld 020. The QA inspector noted that Wang Min is the SAW machine operator.

The QC inspector Wang Saifa, approved CAWI is monitoring the welding at this location. The QA inspector noted that 4.8mm JW-3 electrode is on the spool for the SAW machine. Welding procedure specification (WPS) B-T-2221-B-L2c-S is being used at both locations to make complete joint penetration welds. There was no welding observed at this time and no welding parameters could be randomly observed. The QA inspector noted that the QC inspector Li Zhi Jiang is the approved CWI monitoring the work area.

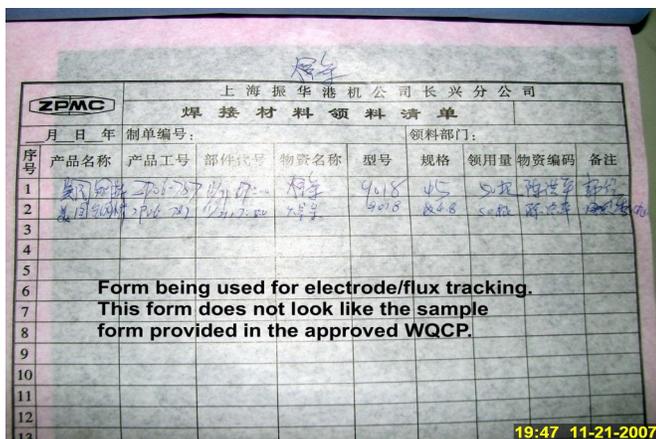
The QA inspector made random observations of the electrode and flux storage and sign out sheets. The QA inspector observed a ZPMC worker, sitting in front of the electrode storage oven holding the door of the oven open. Upon the QA inspector's arrival in the storage area, the worker promptly closed the door of the electrode storage oven. It appeared as though the electrode storage oven was being used by the ZPMC worker as a space heater. The QA inspector noted that the temperature displayed on the storage oven was reading 112°C. The QA inspector also noted that the sign out form being used for the electrode and flux tracking does not appear to

# WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

comply with the sample form that is presented in the approved welding quality control plan (WQCP).

Bay 3: The QA inspector observed ZPMC personnel grinding on assorted stiffener T plates preparing them to be fit onto side plates. The QA inspector did not observe any welding in Bay 3 during this shift. See the attached photos.



## Summary of Conversations:

The QA inspector Scott Croff had conversations with the ZPMC QC inspectors Wang Saifa and Li Shi Jiang regarding the work that was observed in Bay 7. The QA inspector was informed of the status of the work, as noted above.

The QA inspector Scott Croff had general conversations with the QA inspectors Bruce Berger and Roscoe Dixon. The QA inspectors discussed the above mentioned observations in Bay 7, Bay 3 and the electrode/flux storage area.

There were no other notable conversations during this shift.

## 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.

---

---

# WELDING INSPECTION REPORT

*( Continued Page 3 of 3 )*

---

---

<b>Inspected By:</b>	Croff, Scott	Quality Assurance Inspector
----------------------	--------------	-----------------------------

<b>Reviewed By:</b>	Cuellar, Robert	QA Reviewer
---------------------	-----------------	-------------