

**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-000470**Date Inspected:** 07-Sep-2007**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:** Cui Yi Ru**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:** N/A**Summary of Items Observed:**

CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the fabrication of the Mock-up 77, 89 and 114 meters elevations scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

**Tower Mock-up 77 Meters Elevation**

The QA performed ultrasonic testing (UT) evaluation from the side A on the diaphragm plate SA-104 joint # 73 evaluating the middle half and bottom quarter with the 70° angle wedge and the top quarter 45° angle wedge. The QA inspector found indications on the top quarter scanning with 45° angle wedge that could mask relevant indications reflecting from the weld reinforcement. The QA inspector had a conversation with Dave McClary and Kevin Carpenter. After Mr. McClary explained Mr. Carpenter the intent of the special provision, Mr. Carpenter, Mr. McClary and the QA inspector agreed that ZPMC should either grind the surface of the weld reinforcement from face A or scan the weld from side A and B with the 70° angle wedge. After Mr. Carpenter had a conversation with ZPMC representatives, Mr. Carpenter relayed to the QA inspector that ZPMC was going to turn outside down the diaphragm plate SA104 and SA95 to the side B. The QA inspector had a conversation with ZPMC QA Supervisor Hu Gang. Mr. Hu relayed to the QA inspector that ZPMC decided to turn outside down the top diaphragm SA-104 on 09/08/07 and give access for the QA inspector to perform ultrasonic test verifications from the side B of the weld. The QA inspector evaluation on the diaphragm SA-104 was not completed on this date.

Note: The QA inspector observed ZPMC personnel performing weld pick-ups with the shielded metal arc welding

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# WELDING INSPECTION REPORT

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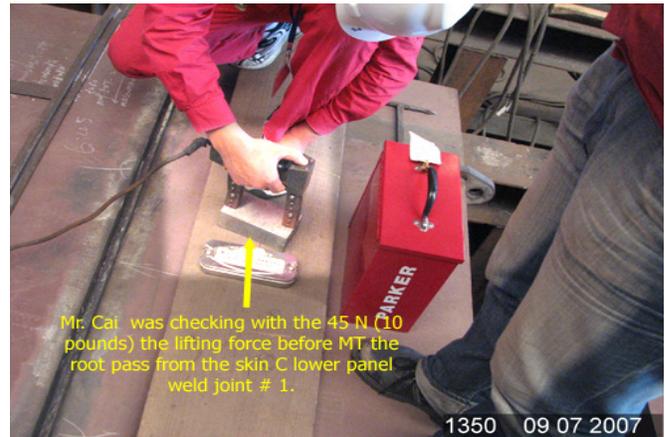
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(SMAW) process at the junction of the skins B, C and D with the stiffeners plates.

Tower Mock-up 89 Meters Elevation

The QA inspector was preparing to fit-up the top diaphragm plates P1236 to the SA-13. The QA inspector performed random verifications of the joint configuration before fit-up. The QA inspector observed that bevel angle, depth of preparation and root face appeared to be in compliance with the contract documents. Note: No welding was observed on this shift.



## Summary of Conversations:

As noted 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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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**Inspected By:** Acuna,Alfredo

Quality Assurance Inspector

**Reviewed By:** Cuellar,Robert

QA Reviewer