

**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-000210**Date Inspected:** 06-Jun-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Wei Huang**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:** HP2007154 & 226**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Bruce Berger was present to observe quality control functions related to welding, testing and fabrication procedures at the Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

Caltrans Quality Assurance (QA) Inspector Bruce J. Berger performed final visual inspection on procedure qualification test plate HP2007225. The test plate appeared to be acceptable to the code and specification. For details see Welding Witness Report TL-6032 dated June 6, 2007. QA assigned Lot # B72-041-07 to this PQR.

Caltrans Quality Assurance (QA) Inspector Bruce J. Berger witnessing ZPMC performing flux cored arc welding (FCAW) procedure qualification record (PQR) HP2007154, PWPS-B-T-2231T test. The welder is identified as Mr. Zhang Xing Jin, welding passes one through four. The test plate material type is identified as A709 Grade 50F-2 and thickness, 30 mm. The PQR complete joint penetration groove weld testing was performed in the vertical (3G) position with ceramic backing. The welding consumable is identified as a 1.4 mm wire, classification E71T-1, specification AWS A5.20. Caltrans QA observed ZPMC QA Inspector, Mr. Wei Huang and two associates monitoring and supervising the testing per AWS 5.13 criteria; amperages, voltages, travel speeds, preheat and inter-pass temperatures. Also present at the test site was American Bridge/Fluor (ABF), quality control (QC) inspector, Mr. Song Wei Min. QA observed that the wind velocity at the ZPMC testing site appear to be in conformance with AWS D1.5, paragraph 4.14.3 requirements. Welding was stopped after 4 passes and the test plate abandoned.

Caltrans Quality Assurance (QA) Inspector Bruce J. Berger witnessing ZPMC performing flux cored arc welding

---

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 2 )

---

---

(FCAW) procedure qualification record (PQR) HP2007226, PWPS-B-T-2132 test. The welder is identified as Mr. Jiang Xiau Hu, welding passes one through three. The test plate material type is identified as A709 Grade 50F-2 and thickness, 26 mm. The PQR fillet welding joint testing was performed in the horizontal (2F) position. The welding consumable is identified as a 1.4 mm wire, classification E71T-1, specification AWS A5.20. Caltrans QA observed ZPMC QC Inspector, Mr. Wei Huang and two associates monitoring and supervising the testing per AWS 5.13 criteria; amperages, voltages, travel speeds, preheat and inter-pass temperatures. Also present at the test site was American Bridge/Fluor (ABF), quality control (QC) inspector, Mr. Song Wei Min. QA observed that the wind velocity at the ZPMC testing site appear to be in conformance with AWS D1.5, paragraph 4.14.3 requirements. Welding was completed and QA lot number B72-041-07. For details see Welding Witness Report TL-6032 dated June 6, 2007.



### Summary of Conversations:

No relevant conversations took place on 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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

---

<b>Inspected By:</b>	Berger, Bruce	Quality Assurance Inspector
<b>Reviewed By:</b>	McClary, David	QA Reviewer

---