

**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-000146**Date Inspected:** 08-May-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 800**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:** Song Wei Min**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:** PQR Test**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Mike Hasler 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.

At 0930 hours, ZPMC resumed PQR HP200777 weld test. Caltrans QA Inspector witnessed ZPMC welder, Mr. Zhu Hai Ping perform shield metal arc welding (SMAW) in the 3G position. The welding consumable is identified as a 4.0 mm electrode, classification E9018M-H4R. Caltrans QA observed ZPMC QA Inspectors, Mr. Wei Huang and Ms. Meng Chun Xia, and American Bridge/Fluor (ABF) subcontractor for quality control, Bureau Veritas Inspector, Mr. Song Wei Min monitoring and supervising the testing per AWS 5.13 criteria; amperages, voltages, travel speeds, preheat and interpass temperatures. QA observed that the ZPMC testing center for ambient temperature and wind velocity appear to be in conformance with AWS D1.5, paragraph 3.1 and 4.14.3 requirements.

Caltrans QA inspector recorded welding parameters for a total of 5 weld passes, 27 through 31. Caltrans QA Inspector observed that the welder was welding over partially cleaned weld passes and not chipping and cleaning weld termination during the changing of electrodes. It appeared that Mr. Song was aware of the questionable weld cleaning and no action was taken by Mr. Song. Caltrans QA verified that the welding parameters taken by ZPMC QC inspector, appeared to be accurate and in accordance with the contract documents. At 1100 hours ZPMC QC Inspector, Mr. Wei Huang stopped the welding for lunch. At 1330 hours, ZPMC QA Inspector, Mr. Hu Gang notified Caltrans QA that ZPMC would not be resuming the testing due to ZPMC not having a certified welding inspector available, and that welding would be resumed tomorrow, May 9, 2007.

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# WELDING INSPECTION REPORT

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## Summary of Conversations:

As identified within the contents of this report.

## 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:** Hasler, Mike

Quality Assurance Inspector

**Reviewed By:** McClary, David

QA Reviewer

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