

**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-000530**Date Inspected:** 24-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:** Changxing Island**CWI Name:** Ye Jong Jun**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:** 77m and 89m**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Larry Viars was present to observe the Ultrasonic Testing (UT) of the Caltrans Mock-up #89.00 and # 77.00, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Caltrans QA Inspector observed ZPMC Quality Control (QC) performing UT on Mock-up #89.00 and #77.00. P1236 to SA13 Complete Joint Penetration (CJP), and Magnetic Particle Testing (MT) of Mock-up #114.00 Skin Plate C sub assembly MA111 longitudinal stiffener welds. ZPMC QA inspector Mr. Li Xiu Yong stated, the weld number for Mock-up 89.00 was MUB MA21. Caltrans QA observed ZPMC QC perform VT of Mock-up #114.00 Skin C CJP welds #8 & #11.

Caltrans QA Inspector observed ZPMC QC nondestructive technicians, Mr. Li Liming performing Ultrasonic Testing on Mock-up # 89.00 and # 77.00. The following picture below illustrates Mr. Li Miming performing Ultrasonic testing of # 77.00 diaphragm. Mr. Li Liming performed straight beam 45 degree and 70 degree shear wave testing of the items listed below. #77.00 Mock- up diaphragm MUB- MA21 weld # 67 and 89.00 diaphragm MUB1 weld # 60. Mock-up 77.00 base metal repair area. Welds tested on 89.00 diaphragms were adjacent to areas that slots were cut on the plate after the initial weld. The areas tested measured 1000 mm from each end of the weld. ZPMC QC Mr. Li Liming reported the above mentioned welds to be acceptable to AWS D1.5 requirements. Caltrans QA inspector Viars observed a random repair area on Mock-up 114.00 Skin A sub assembly MA107 weld # 3 that measured 200 mm. ZPMC QC Ye Yong Jun informed Clatrans QA that the repair was requested by Mr. Jun for weld profile irregularities noted on the weld. Mr. Jun informed Caltrans QA that WPS-345-SMAW-2G (2F) was utilized.

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# WELDING INSPECTION REPORT

( Continued Page 2 of 2 )

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The Caltrans QA Inspector monitored Ultrasonic examinations of Mock-up # 77.00 and #89.00. QA Inspector observed that the testing appeared to be in general conformance with AWS D1.5 2002 requirements.



## 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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| <b>Inspected By:</b> | Viars,Larry    | Quality Assurance Inspector |
| <b>Reviewed By:</b>  | Cuellar,Robert | QA Reviewer                 |

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