

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-000618**Date Inspected:** 09-Oct-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:** Hu Gang**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:** Tower Mock-up 114 M and 89 M**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 Splice Mock-up 114 Meter Elevation

The QA inspector observed that the weld joint # 3 at the junction of internal splice A-75 to the longitudinal stiffener, had couplant residues from the ultrasonic testing (UT) and that there were no marks indicating the final results from the test as to whether or not the weld was acceptable or rejectable (this weld joint was welded by one of the ZPMC best welders because ZPMC was searching for the causes of the high UT rejection rate on the stiffeners connections). The QA inspector had conversation with ABF on site representative Mr. Steve Lawton. The QA inspector questioned Mr. Steve Lawton about the results of the UT performed by ZPMC at the junction of internal splice A-75 to the longitudinal stiffener, weld joint # 3. After Mr. Steve Lawton conversed with ZPMC QA representative Mr. Hu Gang, Mr. Lawton relayed to the QA inspector that the weld joint # 3 at the junction of the internal splice A-75 and longitudinal stiffener had over 20 % of rejectable indications on the weld joint as detected by ZPMC's UT. The QA inspector brought this matter to the attention of Senior Task Leader Mr. David McClary about the results of the UT examination on the internal splice A-75. The photograph below shows the joint # 3, at the internal splice A-75.

Note: While the QA inspector was gathering information about the percentage of rejectable indications reported on ZPMC's UT reports at the QC ZPMC office, Mr. Lu Jian Hua relayed to the QA inspector that ZPMC prefers that

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Caltrans QA inspectors request UT information performed by ZPMC thru ABF first; and if ABF does not facilitate the information, ZPMC would provide it to Caltrans. ABF and ZPMC did not provide UT reports requested by the QA inspector on this date.



| Item | Description | WBS | Dwg No. | Status |
|------|---|-----|---------|--------|
| 1 | <p>Magnetic Particle Testing Tower Mock-up 89 M</p> <p>The QA inspector observed ZPMC performing MT verifications of the tack welds at the junction of the plate mp508 and MA23 Skin C lower section, weld joint # 34A and 34B. The QA inspector observed MT ASNT Level II technician Cai Xin Xin performing MT verifications. The QA inspector observed that Mr. Cai's MT verifications appeared to be in compliance with the Contract documents. However, the QA inspector observed that ZPMC was grinding indications at the tack welds. After the removal of the MT indications and after the QA inspector asked Mr. Lay about ZPMC findings, the QA inspector was informed by the ZPMC QA inspector Lay Tao that those indications that ZPMC found were cracks. The QA inspector relayed to Mr. Lay that according with the ZPMC's WQCP, ZPMC is required to notify Caltrans on site representative when cracks on the tack welds are found. Mr. Lay relayed that ZPMC would notify shop supervisors about this discrepancy. The QA inspector had a conversation with Caltrans Senior Task Leader Mr. Dave McClary regarding ZPMC failing to notify Caltrans representatives when ZPMC found cracks in the tack welds. Mr. McClary relayed to the QA inspector that he would discuss this discrepancy during the daily ABF/ZPMC and Caltrans issues meeting.</p> | | | |

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 |
