

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-001050**Date Inspected:** 19-Dec-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 1300**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2330**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Wang Saifa**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:** OBG and Tower Mockup**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector Joe Lanz arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China to periodically monitor welding and Quality Control (QC) functions during second shift. While on site the QA Inspector observed and/or discovered the following.

Bay 4**OBG Beams**

1) QAMT) The QA inspector performed magnetic particle testing (MT) and visual inspection verification of plates BP007 and BP012 to T stiffener weld numbers 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23 and 24. The welds were visually inspected by ZPMC QC inspector Xn Siam Ping. The welds were examined using magnetic particle testing for 10% of the weld length by ZPMC QC personnel Cai Xin Xin. The QA inspector performed visual inspection of the welds and they were examined using magnetic particle AC yoke for 10 % of the weld length and 50% of the weld terminations. The QA inspector did concur with the QC/NDT inspector's assessment. The work was completed on this date and the welds and inspections appear to meet the minimum requirements of the contract documents and AWS D1.5-96. A magnetic Particle Testing Report (TL-6028) for welds that were tested in accordance with AWS D1.5-96 and contract requirements was generated on this date.

Bay 7**OBG Beams**

The QA Inspector randomly observed ZPMC welding personnel Wang Chang Fa, ID #068102 tack welding floor beam FB007-01 stiffeners, weld numbers 015, 016, 017 and 018. The welding was performed in the 2F (horizontal) utilizing a shielded metal arc welding (SMAW) process with a 4.0mm diameter electrode, filler metal

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

appeared to be E7018, brand name TL-508. The QA Inspector periodically observed the ZPMC QC Certified Welding Inspector Ye Yongjun monitoring the welding and the ZPMC QC Certified Associate Welding Inspector Wang Saifa verifying that the welding parameters and the minimum pre-heat of 20 Centigrade were in accordance with the Welding Procedure Specification WPS-B-P-2112. The QA Inspector observed that the preheat and welding parameters measured by the QC CAWI Inspector appeared to be within the WPS ranges of 140 to 180 amps, 20 to 27 volts and 48 to 194mm per minuet travel speed. The welding parameters and work observed by QA Inspector appear to meet the minimum requirements in accordance with the WPS and contract documents. The QA Inspector randomly observed ZPMC welding personnel Ren Jinzhi, ID #044837 tack welding floor beam FB001-03 stiffeners, weld numbers 015, 016, 017 and 018. The welding was performed in the 2F (horizontal) utilizing a shielded metal arc welding (SMAW) process with a 4.0mm diameter electrode, filler metal appeared to be E7018, brand name TL-508. The QA Inspector periodically observed the ZPMC QC Certified Welding Inspector Ye Yongjun monitoring the welding and the ZPMC QC Certified Associate Welding Inspector Wang Saifa verifying that the welding parameters and the minimum pre-heat of 20 Centigrade were in accordance with the Welding Procedure Specification WPS-B-P-2112. The QA Inspector observed that the preheat and welding parameters measured by the QC CAWI Inspector appeared to be within the WPS ranges of 140 to 180 amps, 20 to 27 volts and 48 to 194mm per minuet travel speed. The welding parameters and work observed by QA Inspector appear to meet the minimum requirements in accordance with the WPS and contract documents.

Summary of Conversations:

No relevant conversations.

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.

Inspected By:	Lanz,Joe	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer
