

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-001177**Date Inspected:** 06-Jan-2008**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 Yong 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:** Caltrans Mock-up**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Larry Viars was present to observe welding operations of the Orthotropic Box Girder (OBG). The 77.00, 89.00 and 114.00 meter mock-up, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Caltrans QA Inspector Viars observed ZPMC welder Mr. Wong Zhonghun tack welding OBG side plate weld SP-007-01-014 to the specifications of WPS-B-P-2112-FCM.

Random visual inspection of OBG side plate SP047 QA Inspector Viars observed a fillet weld with excessive convexity measuring 10 mm. WPS-B-T-2132 states 8 mm as the maximum weld size. ZPMC QC Mr. Lei Tao stated the area was from a repair and would be ground within the specified limits.

Caltrans QA Inspector observed ZPMC welder Guo Dengyun performing Shielded Metal Arc Welding (SMAW) on Mock-up 77.00 weld # 62, 63 and 66 in accordance with WPS-B-T-4313-TC-P4-1. Please the attached photo of stiffener to diaphragm welding.

Caltrans QA Inspector monitored Shielded Metal Arc Welding (SMAW) of Mock-up 89.00, weld # MUB MA24 H/J - 7. ZPMC QC Mr. Ye Yong Jun stated welding was being performed in accordance to WPS-B-T-4313-TC-P4-1. The following welding parameters were recorded, amperage 183, voltage 24.7 (by ZPMC), travel speed 107 mm/min and a heat input of 2.53 kJ/mm.

Caltrans QA Inspector Viars observed ZPMC personnel rotating Mock-up 114.00 Lower Shaft after Critical Weld

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

Repair (CWR (CT) 032) prior to starting Post Weld Heat Treatment (PWHT). The CWR stated the minimum preheat 200 degrees Celsius be maintained and a range of 230 to 315 Celsius be held for 1 hour for each 25 mm of excavated depth. By the time heating elements were put in place the weld temperature had dropped to 150 degrees Celsius. Approximately 3 hours passed before ZPMC raised the temperature to 230 degrees Celsius.



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.

Inspected By:	Viars,Larry	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
