

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-003158**Date Inspected:** 22-Jun-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1730**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Changxing Island**CWI Name:** Wang Sai Fa**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**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Larry Viars was present to monitor activities associated with the Production Monitoring Test of Orthotropic Box Girder (OBG) Deck Panel U-rib welds and Tower components, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Tower Heavy Machinery Shop Bay 2

The Caltrans QA Inspector observed ZPMC welder Mr. Xu Xiushui performing Submerged Arc Welding (SAW) fill passes on Tower Skin plate A Complete Joint Penetration (CJP) weld joint SSD1-SA16 A/G 46B in the 1G position. Welding procedure specification WPS-B-T-2221-B-U3C-S was posted for the above mentioned fill passes. The following welding variables were recorded, amperage 660, volts 33.2, travel speed 610 mm/min., with a heat input of 2.15 kJ/mm. The above mentioned welding appeared to meet the requirements of AWS D1.5 (2002) and applicable contract documents.

OBG Assembly Shop Bay 1

The Caltrans QA Inspector monitored the OBG Production Monitoring Test (PMT) for Deck Panels DP553-001 and DP612-001. The Caltrans QA inspector recorded amperage, voltage and travel speed of the Gas metal Arc Welding (GMAW) root pass and the Submerged Arc Welding (SAW) cover pass. A Visual inspection of the root pass and cover pass was performed by ZPMC, American Bridge Flour (ABF) and the Caltrans QA. Underfill was noted on 5 of the 6 welds with a depth of up to 1 mm. Underfill is not referenced in the PMT acceptance criteria.

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

Please see the attached photo of the above mentioned underfill. The Caltrans QA observed ZPMC QC Mr. Xue Hai Rong perform Ultrasonic testing of the Partial Joint Penetration weld for depth of penetration. Mr. Xue found the PMT welds to be in compliance with contract documents. The Caltrans QA inspector designated locations for Macroetch samples (15 locations). Macroetch samples evaluated with a 7x optical comparator and found acceptable by ZPMC QC, ABF QC and The Caltrans QA Inspector.



Summary of Conversations:

No relevant conversations occurred this date.

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:	Cochran,Jim	QA Reviewer
