

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-001490**Date Inspected:** 19-Feb-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**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:** Sun Wei**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 DP U-ribs**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Larry Viars was present to perform observations of the welding of Orthotropic Box Girder (OBG) U ribs Production Monitoring Test (PMT) and Production Panel, 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 the Production Monitoring Test for Production Panel DP059-001 and DP060-001 closed rib welds in Bay #1. ZPMC welding personnel performed Gantry Machine Gas Metal Arc Welding (GMAW) for the root pass. Dual process WPS-B-T-2342-U1 (U-rib)-3 was posted as the Welding procedure specification for closed rib welding. The following weld joint and welder were recorded for the PMT, weld joint (wj) wj # 1 Mr. Han Chang Hou, wj # 2 Mr. Chen Jie, wj # 3 Mr. Gao Xin Dong, wj # 4 Mr. Jiang Ting Guang, wj # 5 Mr. Zhao Cheng Shuang and wj # 6 Mr. Yuan Fengchuan. Welding operator was Mr. Li Xide. The following welding variables of the PMT were recorded, amperage 355 to 374, voltage 30 to 31 with a travel speed of 525 mm/min.

The ambient temperature in bay # 1 was recorded at 5 degrees Celsius with the production panel temperature recorded at 24 degrees Celsius prior to welding.

After completion of the PMT GMAW pass ZPMC personnel performed the GMAW pass on Production Panel DP059-001. The following welders were observed welding production deck plate u-ribs welds, Mr. Hang Chang Hou wj-1 and 3, Mr. Chen Jie wj- 2 and 4, Mr. Guo Xin Dong wj-5 and 7, Mr. Zhao Cheng Shuang wj-9 and Mr. Yuan Fengchuan wj-10. The following welding variables of production panel U-ribs was recorded, amperage 342

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to 376, voltage 30 to 31 with a travel speed of 520 mm/min.

Caltrans representatives observed rust areas tears and fins on weld joints prior to GMAW welding. Areas were shown to ZPMC personnel prior to welding. ZPMC performed GMAW on DP059-001 and DP060-001 before completing SAW on the PMT. Incident reports were issued for the above mentioned anomalies.

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
