

**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-001560**Date Inspected:** 26-Feb-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 600**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 Deck Panels**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-rib 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 U-rib Production Monitoring Test for Production Panel DP020-001 closed rib welds in Bay # 1. Tack welding appeared to be in conformance with the contract documents. ZPMC welding personnel performed Gantry Machine Gas Metal Arc Welding (GMAW) for the root pass and Submerged Arc Welding for the cover 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. Feng Chuanhong, wj # 2 Mr. Chen Jie, wj # 3 Mr. Gao Xin Dong, wj # 4 Mr. Jiang Ting Guang, wj # 5 Mr. Zhao Shao Hui and wj # 6 Mr. Dong Yi Qun. Welding operator was Mr. Li Xide. The following welding variables of the PMT were recorded, (GMAW) amperage 343 to 370, voltage 30.6 to 31.6 with a travel speed of 510 mm/min, (SAW) amperage 678 to 684, voltage 25.3 to 25.4 with a travel speed of 536. ZPMC QC Sun Wei confirmed that this was the first PMT for ZPMC welders Mr. Feng Chuanhong (PMT weld # 1) and Mr. Zhao Shao Hui (PMT weld # 5).

The ambient temperature in bay # 1 was recorded at 7 degrees Celsius at 1011 with the PMT panel temperature recorded at 14 degrees Celsius prior to welding.

Welding of DP020-001 (3 rib panel) GMAW pass commenced at 1025 and concluded at 1106. The following

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welding variables were recorded during DP020-001 GMAW passes, amperage 342 to 370, voltage 30.5 to 31.4 with a travel speed of 545.

ZPMC QC Sun Wei confirmed that this was the first PMT for ZPMC welders Mr. Feng Chuanhong (PMT weld # 1) and Mr. Zhao Shao Hui (PMT weld # 5).

**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.

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<b>Inspected By:</b>	Viars,Larry	Quality Assurance Inspector
<b>Reviewed By:</b>	Cuellar,Robert	QA Reviewer

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