

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-003283**Date Inspected:** 06-Jul-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 2300**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:** Chen Xi**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 & 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 welding of Tower components, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Sub Assembly Shop Bay 1

The Caltrans QA Inspector monitored the OBG Production Monitoring Test (PMT) for Deck Panels DP115-002 and DP331-002. 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. The Caltrans QA observed ZPMC QC Ms. E Shuiqin perform Ultrasonic testing of the Partial Joint Penetration weld for depth of penetration. Ms. E found the depth of penetration of the PMT welds to be in compliance with contract documents. The Caltrans QA inspector designated locations for Macroetch samples (15 locations). Macroetch samples were evaluated with a 7x optical comparator and accepted by ZPMC QC, ABF QC and The Caltrans QA Inspector.

Tower Heavy Machinery Shop Bay 1

The Caltrans QA Inspector observed ZPMC welder Mr. Chen Hongxia performing Submerged Arc Welding (SAW) root pass on Tower Skin plate B Complete Joint Penetration (CJP) weld joint SSD1-SA178 A/D 23A in

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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 678, volts 33.0, travel speed 588 mm/min., with a heat input of 2.28 kj/mm. The above mentioned welding appeared to meet the requirements of AWS D1.5 (2002) and applicable contract documents.

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:	Cochran,Jim	QA Reviewer
