

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-003976**Date Inspected:** 18-Sep-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:** Shanghai, China**CWI Name:** Li Yan Hua**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**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Larry Viars was present to observe the Production Monitoring Test (PMT) for Orthotropic Box Girder (OBG) Deck panels, 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:

Gantry #1/ PMT # 1

The Caltrans QA Inspector monitored the OBG Production Monitoring Test (PMT) for Deck Panels DP540-001 and DP545-002. Prior to GMAW welding visual inspection of tack welds, root gap were performed by ZPMC, ABF and CT. During the start of the GMAW weld pass welding head # 3 malfunction at the weld start burning through U-rib. ZPMC opted to continue the PMT. Numerous problems of electrical nature on Gantry 1 and Gantry 2 have been noted. Please the attached photo of GMAW burn through attached below. 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 Xue Hai Rong perform Ultrasonic testing of the Partial Joint Penetration weld for depth of penetration. Mr. Xue found the depth of penetration of the PMT welds to be in compliance with contract documents. ZPMC QC Fu Yuhong stated that the chop saw used to cut macroetch samples was broke and samples 6-4 and 6-5 would not be ready on the night shift. Macroetch samples 1-1 through 5-3 were evaluated with a 7x optical comparator and accepted by ZPMC QC, ABF QC and The Caltrans QA Inspector.

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OBG Assembly Shop Bay 2:

Caltrans QA Inspector verified progress of Deck Panel PJP weld repair of DP052-001, DP004-001 and DP002-002. Weld repair status marked on spreadsheet and turned in for review.



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 Ady Velasco 138 1694 2685, who represents the Office of Structural Materials for your project.

Inspected By:	Viars,Larry	Quality Assurance Inspector
Reviewed By:	Lanz,Joe	QA Reviewer
