

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-003895**Date Inspected:** 12-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:** Sun Bo**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:

The Caltrans QA Inspector monitored the OBG Production Monitoring Test (PMT) for Deck Panel DP389-001. Prior to Gas Metal Arc Welding (GMAW) root gap measurements and visual inspection of tack welding were found to be compliant with contract documents. During the first PMT Gantry # 2 welding heads # 3 and # 4 malfunctioned on the Submerged Arc Welding (SAW) pass. ZPMC personnel could not remedy the problem and failed the PMT. A new set of Deck plates (3) were moved to Gantry 1. ZPMC personnel ground the tack welds performed MT and visual testing of the root gap and tack welds were performed by ZPMC, ABF and Caltrans. 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. The Caltrans QA inspector designated locations for Macroetch samples (15 locations). Macroetch samples were evaluated with a 7x optical comparator and PMT #2 was found acceptable by ZPMC QC, ABF QC and The Caltrans QA Inspector.

DP389-001- Tack welding completed, grinding not complete. ZPMC stated MT will be performed on day Shift.

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No other activities observed.



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
