

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-000767**Date Inspected:** 30-Oct-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Fu Guogang**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 weld trial**Summary of Items Observed:**

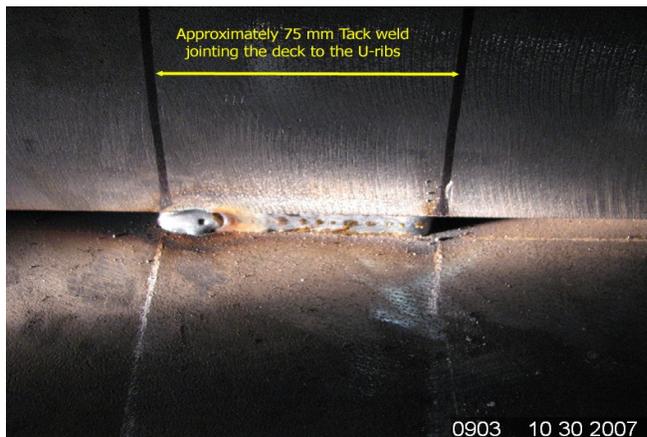
CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the fabrication of the 10 meters U-ribs Weld Trial scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

The QA inspector was performing fit-up verifications on the second ZPMC weld trial for the fabrication of the mock-up for the orthotropic box girder (OBG) at the junction of deck panel to U-ribs U-73, U-01, U-75, U-02 and U-05. The QA inspector performed random verifications of the gaps between the deck and the U-ribs, tack welds spacing and length at the ZPMC second Weld Trial. The QA inspector observed that gaps between the deck panel and the U-ribs exceed 0.65 mm in four locations at the weld joint # 2, 6, 3 and 10. The QA inspector had a conversation with ZPMC QA inspector Mr. Fu Yu Hong. The QA inspector showed to Mr. Fu Yu Hong that the second weld trial had gaps exceeding the maximum required of 0.5 mm on ZPMC's fabrication procedure. Mr. Fu Yu Hong relayed to the QA inspector that ZPMC representative was going to ask the ZPMC's technical department. The QA inspector had a conversation Caltrans Task Leader Robert Cuellar and David McClary about gaps on the weld trial exceeding the maximum allow in the ZPMC's fabrication procedure. After, Mr. David McClary conversation with ABF representative Mr. Peter Ferguson, Mr. Peter Ferguson relayed to Mr. David McClary that ZPMC planned to proceed welding the second OBG weld trial with gaps exceeding the minimum required by the fabrication procedure to demonstrate that welding with gaps exceeding the maximum could still obtain satisfactory results and that ZPMC on the actual production would keep 0.5 mm gap as the maximum tolerance. The QA inspector observed welder Yang Yong Zheng performing tacking operations with the gas metal arc welding (GMAW) process. The QA inspector verified the welding parameters. The QA found that the welding parameters appeared to be in general compliance with the welding procedure specification (WPS)-B-T 2342 U2

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

(U-ribs). The digital photographs show ZPMC fit-up activities and the area at the weld # 2 U rib U-73 where the QA inspector found a gap greater than 0.5 mm.



Summary of Conversations:

As noted above.

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: Acuna, Alfredo

Quality Assurance Inspector

Reviewed By: Cuellar, Robert

QA Reviewer