

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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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-001088**Date Inspected:** 09-Dec-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:** See Below**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:** Tower Fabrication**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following:

CWI Names: Wi Yi Ru, Li Zhijiang, Lee Chan Wu

Orthotropic Box Girder (OBG) and Tower Mock Up:

Bay 7:

The QA Inspector observed ZPMC welder Huang Xin Lan stencil 44780 is using welding procedure specification WPS-B-T-2221-B-L2C-S-1 to make submerged arc groove weld FB008-06-023 between OBG plate X47 to plate X15. The QA Inspector observed a welding current of approximately 530 amps, 30 volts, and the base material had been preheated to a minimum of 60 degrees C. Items observed by the QA Inspector appear to comply with project specifications.

The QA Inspector observed ZPMC welder Mr. Jin Chengmao stencil 58551 is using welding procedure specification WPS-B-T-2231-B-U2a-F to make flux cored groove welds on a temporary attachment plate that is being welded to OBG plate X14 plate. The QA Inspector observed a welding current of approximately 230 amps, 29.6 volts and the base material had been preheated to a minimum of 65 degrees C. Items observed by the QA

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Inspector appear to comply with project specifications.

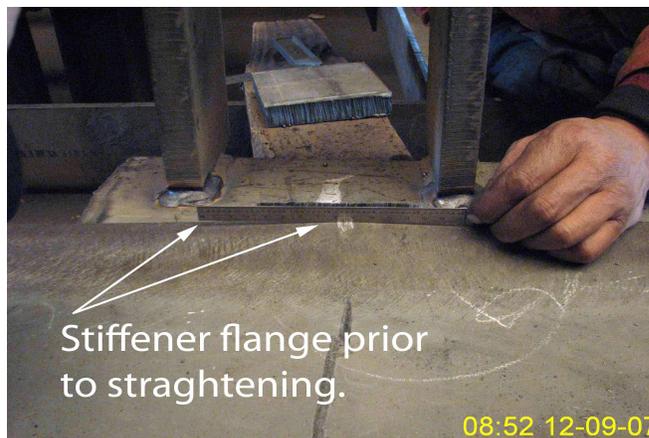
Bay 3:

The QA Inspector observed ZPMC welder Mr. Wei Dashuai stencil 51246 is using welding procedure specification WPS-B-T-2132-1 to make flux cored fillet tack welds on OBG base plate 001 stiffener weld BP001-1-033. The QA Inspector observed a welding current of approximately 280 amps 29 volts and the base material had been preheated to a minimum of 65 degrees C. Items observed by the QA Inspector appear to comply with project specifications.

The QA Inspector observed ZPMC welder Mr. Liu Zihong stencil 62447 is using welding procedure specification WPS-B-T-2132-1 to make flux cored fillet tack welds on OBG plate 35A stiffener weld BP003-01-14. The QA Inspector observed a welding current of approximately 290 amps 28.5 volts, a CO2 shielding gas flow of 18 liters per hour and the base material had been preheated to a minimum of 65 degrees C. Items observed by the QA Inspector appear to comply with project specifications.

The QA Inspector observed ZPMC personnel perform flame straightening of plates X17A, X49B and X15A as directed by HSR1(B)072 rev. 0. The QA inspector observed Quality Control personnel monitoring the heat temperature using a laser indicating device, and the temperatures observed appear to comply with the requirements of the HSR listed above.

The QA Inspector observed ZPMC personnel using a hydraulic jack to straighten the web of a stiffener plate that is to be installed on OBG plate 33A. Prior to straightening, the web had a localized area with approximately 8 mm of misalignment and after application of pressure the web plate appeared to be within 1 mm of being straight. See the photographs below for additional information. Items observed by the QA Inspector appear to comply with project specifications.



## Summary of Conversations:

See above for summary of conversations.

## 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

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for your project.

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<b>Inspected By:</b>	Dawson,Paul	Quality Assurance Inspector
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<b>Reviewed By:</b>	Cochran,Jim	QA Reviewer
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