

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-002468**Date Inspected:** 16-Mar-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Zhang Lei, 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:** See Below**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector, M. Paul Stovall, was present at Zhenhua Port Machinery Company (ZPMC) on Changxing Island, Shanghai, China for the purpose of monitoring the Quality Control (QC) program during fabrication of the SAS/San Francisco/Oakland Bay Bridge.

Bay 3

The QA Inspector observed ZPMC QC personnel perform and accept the Magnetic Particle Testing (MT) on Side Plate (SP) SP008-01-(01-010). The MT appeared to be in accordance with the applicable codes and the welds appeared to meet the contract specifications.

Bay 4

The QA Inspector observed ZPMC personnel had removed the cracked tack welds on Internal Tower Diaphragm Plate splice weld number SSD1-SA335-1A. After removal of the tack welds and preheating the QA Inspector observed ZPMC welding personnel Hai Xaio Feng, ID #054467, using the Shielded Metal Arc Weld (SMAW) process to re-tack weld the weld joint. The work appeared to comply with Welding Procedure Specification (WPS) WPS-B-T-3311-Tc-p4-PJP. The QA Inspector observed one of tack welds was approximately 600 millimeters in length.

The QA Inspector observed ZPMC personnel had positioned plates SA306 and SA287 together and welded run off tabs at each end of Internal Tower Diaphragm Complete Joint Penetration (CJP) weld number

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ESD1-SA287-4A/4B during the fit up process.

The QA Inspector observed ZPMC personnel performing heat straightening on various Tower Diaphragm Plates with Quality Control (QC) personnel present and monitoring the temperatures.

Bay 7

The QA Inspector observed ZPMC personnel fitting and tack welding WT stiffeners to Floor Beams (FB) FB018-02, FB018-01, FB022-02, and FB021-01. Welding personnel Hong Shuili, ID #044815, Yuan Wensong, ID #055491, Wu Wanyong, ID #050242, Wang Lin Jiang, #051356 and Qing Quan, ID #044754 performed the tack welding. The work observed appeared to comply with WPS-B-T-2132-3, welded the fillet welds at the stiffeners.

Bay 8

The QA Inspector observed ZPMC has fit up and tack welded two (2) new Internal Tower Diaphragm Plate CJP splices weld joint SSD1-SA326-1A and NSD1-SA334-A/B-1A. The QA Inspector observed ZPMC personnel have not started Submerged Arc Welding (SAW) welding due to difficulties in achieving and stabilizing the preheat.

Summary of Conversations:

The QA Inspector had ongoing conversations with ABF C. K. Chen and other ABF QC personnel in regards to the difficulties ZPMC is having with the preheating of the Internal Tower Diaphragm Plate CJP splices welds.

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:	Stovall,Paul	Quality Assurance Inspector
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Reviewed By:	Hager,Craig	QA Reviewer
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