

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-010520**Date Inspected:** 11-Nov-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**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:** OBG Fabrication**Summary of Items Observed:**

CWI Inspector: Mr. Li Ming

On this date CALTRANS OSM 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. This QA Inspector observed the following:

ZPMC Boat Dock

This QA Inspector performed random ultrasonic inspections for detection of planar transverse indications of the top deck plate butt welds OBW4-002 (entire length) and OBW4-003 from Y=0 through Y=11090 millimeters. These two welds join OBG segments 4AW and 4BW. This QA Inspector utilized a "D" scan with a 70 degree transducer and the welds appear to comply with project specifications. For additional information on these inspections see Caltrans Ultrasonic Transverse Indication Evaluation sheet dated November 11, 2009.

OBG BAY 10

This QA Inspector observed ZPMC welder Mr. Fang Yung Jie, stencil 054547 is using shielded metal arc welding procedure WPS-B-T-2212-TC-U5 to make South Tower splice plate tack weld SSD1-SPSA4-13-1A. This QA Inspector measured a welding current of approximately 150 amps and the welding electrodes are being stored in a heated portable electrode storage oven. This QA Inspector observed that ZPMC workers verified the base material

WELDING INSPECTION REPORT

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was preheated to a minimum of 110°C prior to welding. This QA Inspector observed Mr. Fang Yung Jie is certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Dai Yunhe, stencil 040586 is using shielded metal arc welding procedure WPS-B-T-2212-TC-U5 to make South Tower splice plate tack weld SSD1-SPSA4-13-1A This QA Inspector measured a welding current of approximately 150 amps and the welding electrodes are being stored in a heated portable electrode storage oven. This QA Inspector observed that ZPMC workers verified the base material was preheated to a minimum of 110°C prior to welding. This QA Inspector observed Mr. Dai Yunhe is certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Gongzhi, stencil 050041 is using welding WPS-B-T-2231-C-U2-F to make South Tower interior splice plate tack weld NSD1-SPSA4-15-2A. This QA Inspector observed a welding current of approximately 300 amps and 29.0 volts. This QA Inspector observed that Mr. Wang Gongzhi is certified to make this weld. The QA Inspector observed Quality Control (QC) Certified Welding Inspector Mr. Li Ming monitoring this welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed Mr. Chang Chuan Gang, stencil 053870 is using flux cored welding process WPS-B-T-2231-TC-U5-F to complete South tower splice plate weld SSD1-SPSA4-20-3A. This QA Inspector observed ZPMC CWI Mr. Li Ming monitoring this welding and this QA Inspector observed a welding current of 330 amps and 32.0 volts. This QA Inspector observed the base material appears to have been preheated using electric heating elements. Items observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

See 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 Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
