

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-005393**Date Inspected:** 31-Jan-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**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: Mr. Sun Bo

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. The QA Inspector observed the following:

OBG Bay 9

QA Inspector observed ZPMC welder Ms. Jiang Maofang, stencil 201250 is using welding procedure specification WPS-B-T-2233-B-U2-F to make flux cored closed rib splice weld DP437-001-192. Later in the shift the QA Inspector observed Ms. Maofang using flux cored welding procedure WPS B-T-2233-TC-U5F to make stiffener to closed rib diaphragm welds on OBG deck plate DP149-001-185. Prior to welding the QA Inspector observed the areas where Ms. Jiang Maofang was preparing to weld appears to have been preheated with a torch and the weld joints have been cleaned to bright metal and fit together as specified by the welding procedure specification. Items observed by the QA Inspector appear to comply with project specifications.

The QA Inspector observed ZPMC welder Mr. Shi Yunli stencil 059409 is using welding procedure specification WPS-B-T-2342-U2 (U-rib) to tack weld OBG closed ribs to deck plate weld DP165-001-007. Prior to welding the QA Inspector observed the base material had previously been preheated using a torch. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

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This QA Inspector observed ZPMC welder Mr. Nang Jie, stencil 055378 is using flux cored welding procedure WPS-345-FCAW-1G(1F)-Repair-1 to make stiffener to baseplate welds on OBG deck plate DP580-001-013R1. Prior to welding the QA Inspector observed the base material had previously been preheated using electrical heater elements. The QA Inspector observed Quality Control personnel measuring a welding current of approximately 300 amps and 28.5 volts. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

This QA Inspector observed ZPMC welder Mr. Dia Xicheng, stencil 066012 is using flux cored welding procedure WPS B-T-2232-TC-U5F to make stiffener to baseplate welds on OBG deck plate DP555-001-021. Prior to welding the QA Inspector observed the base material had previously been preheated using electrical heater elements. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

This QA Inspector observed ZPMC welder Mr. Han Siqi, stencil 066439 is using flux cored welding procedure WPS B-T-2232-TC-U5F to make stiffener to baseplate welds on OBG deck plate DP545-002-011. Prior to welding the QA Inspector observed the base material had previously been preheated using electrical heater elements. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

The QA Inspector observed ZPMC has placed OBG deck plate DP219-001, which has been tack welded together on the east end of gantry #1.

The QA Inspector observed ZPMC is performing air carbon arc gouging to remove ultrasonic rejections in deck plate weld DP585-002-015.

The QA Inspector observed ZPMC is performing grinding of air carbon arc gouges where ultrasonic rejections had been removed in deck plate weld DP575-001-015.

This QA Inspector observed ZPMC has staged closed ribs in the east end of OBG Bay 9 to a height of five layers. ZPMC drawing FP-4 states "The storage of U-Ribs shall not exceed 4 layers". The QA Inspector informed ZPMC QC CWI Mr. Sun Bo that ZPMC has improperly staged closed rib and Mr. Bo said he will have ZPMC remove the top layer of improperly staged closed ribs. Later in the shift the QA Inspector observed ZPMC has removed the improperly staged closed ribs. On January 14 a similar problem was observed and after QC was informed the improperly staged U-Ribs were removed from the fifth layer of staged U-Ribs. See below for a photograph showing where ZPMC has stacked closed ribs in the east end of OBG Bay 9 to a height of five layers.

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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:	Clifford,William	QA Reviewer
