

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-005360**Date Inspected:** 14-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:** Mr. Sun Wei**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:**

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

This QA Inspector observed ZPMC welder Mr. Xiao Bian bin stencil 59440 is using shielded metal arc welding procedure WPS-B-T-2342-U5B-(Urib) to tack weld OBG closed ribs to deck plate DP247-001. Prior to welding the QA Inspector observed the base material was preheated using a torch and one worker was verifying zero gap in the weld groove between the closed rib and the baseplate prior to making each tack weld. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

The QA Inspector observed ZPMC welder Ms. Dong Yiqan, stencil 59450 is using welding procedure specification WPS-B-T-2233-B-U2-F to make a flux cored complete joint penetration groove welds on OBG deck plate closed rib weld DP113-001-156. The QA Inspector observed the base material had previously been preheated with a torch. Items observed by the QA Inspector appear to comply with project specifications.

This QA Inspector observed ZPMC welder Mr. Xing Jie, stencil 59378 is using flux cored welding procedure WPS B-T-2232-TC-U5F to make repairs to OBG deck plate DP615-001 weld #1. Prior to welding the QA Inspector observed the base material had been preheated using electrical heater elements. Items observed by this

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QA Inspector appear to be progressing in compliance with project specifications.

This QA Inspector observed ZPMC welder Mr. Gao Xin Dong, stencil 59361 is using flux cored welding procedure WPS B-T-2232-TC-U5F to make repairs to OBG deck plate DP600-001-013. Prior to welding the QA Inspector observed the base material had 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 several of the deck panel stiffener plates that had previously undergone weld repairs appear to have become distorted due to lack of any distortion control measures being implemented by ZPMC. The QA Inspector issued an incident report stating the following:

The QA Inspector observed distorted deck plates in OBG Bay 9 and the QA Inspector issued the following incident report to document this problem:

“AWS D1.5 Section 3.4 and the Special Provisions require ZPMC to implement of a Distortion Control Plan during welding of bridge components. ZPMC is performing repairs of deck plate (DP545-001) welds in OBG Bay #9 which resulted in distortion of several base plates and stiffener plates.”

This QA Inspector observed ZPMC welder Mr. Song Yun Shu, stencil 59421 is using shielded metal arc welding procedure WPS-B-T-2342-U5B-(Urib) to tack weld OBG closed ribs to deck plate DP220-001. Prior to welding the QA Inspector observed the base material was preheated using a torch and one worker was verifying zero gap in the weld groove between the closed rib and the baseplate. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

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 Representative Mr. Fu Yuhong that ZPMC has improperly staged closed rib and Mr. Fu Yuhong said he will have ZPMC remove the top layer of closed ribs. Later in the shift the QA Inspector observed ZPMC has removed the improperly staged closed ribs.

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
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Reviewed By:	Clifford,William	QA Reviewer
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