

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-002963**Date Inspected:** 14-Jun-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Chen Chih-Ming / Chen Xi**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 side, bottom and deck panels**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG new assembly bay 2

QA observed ZPMC qualified welding personnel perform SMAW tack welding on SEG-026A-003 BP-166 to BP-058 following the guide lines of WPS# WPS-B-P-2211-B-U2. QC monitored the welding process continuously throughout the evening. The welding parameters as measured with Quality Controls calibrated instruments appeared to be in conformance with the posted WPS's and were as follows:

Volts: 25 Amps: 170 Travel speed: 150mm/min

QA observed ZPMC qualified welding personnel perform SMAW tack welding on SEG-023A-001 BP-029 to BP-137 following the guide lines of WPS# WPS-B-P-2211-B-U2. QC monitored the welding process continuously throughout the evening. The welding parameters as measured with Quality Controls calibrated instruments appeared to be in conformance with the posted WPS's and were as follows:

Volts: 24 Amps: 168 Travel speed: 153mm/min

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QA observed ZPMC qualified welding personnel perform SMAW tack welding on SEG-025-001 BP-085 to BP-031 following the guide lines of WPS# WPS-B-P-2211-B-U2. QC monitored the welding process continuously throughout the evening. The welding parameters as measured with Quality Controls calibrated instruments appeared to be in conformance with the posted WPS's and were as follows:

Volts: 25 Amps: 171 Travel speed: 154mm/min

QA observed ZPMC qualified welding personnel perform SAW on SEG-013-031 BP-001 to SP-025 following the guide lines of WPS# WPS-B-T-2221-B-L2c-S-1. QC monitored the welding process continuously throughout the evening. The welding parameters as measured with Quality Controls calibrated instruments appeared to be in conformance with the posted WPS's and were as follows:

Volts: 30.5 Amps: 540 Travel speed: 465mm/min

Other general observations include ZPMC personnel grinding side and bottom panels and weld bevel prep.

OBG Bay 1

QA observed ZPMC qualified welding personnel FCAW tack welding u-rib diaphragms for DP-571-001, DP-541-001 and DP-611-001.

QA observed ZPMC qualified welding personnel on gantry# 1 SAW u-rib to deck plates on DP-586-001 and noted that DP-546-001 welding complete.

QA attempted to do 10% verification Ultrasonic Testing (UT) on the following u-rib diaphragm plates: DP-586-002 welds 187 to 201 however, ZPMC started fitting these u-ribs to the deck plate before QA could UT the welds.

Other general observations by QA were as follows:

QA observed ZPMC has approximately 45 workers performing various functions relative to the fabrication of the OBG Deck Panels. These functions include; closed rib press forming, hole drilling at ends of U-Ribs using a drill template, PJP bevel preparation, closed rib splice FCAW welding, closed rib diaphragm fit-up and FCAW welding, closed rib to deck plate fit-up and tack welding.

OBG bay 7

QA could not locate the following OBG diaphragms for 10% UT verification: SSD9-PP019-131-132 and SSD9A-PP019-132-133. ZPMC QC personnel informed QA that these parts had been moved to OBG new assembly bay 2 however, QA was unable to locate the parts in that bay as well.

OBG bay 8

QA performed 10% UT R1 repair verification on the following tower diaphragms: SSD1-SA126B-001, NSD1-SA169A/B-001 and WSD1-SA290-011. All areas that were scanned appeared to be compliant with AWS D1.5 2002 and the contract documents.

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Summary of Conversations:

Only general conversations were held between QA and QC concerning this project.

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 Patrick Lowry (858)-344-2712, who represents the Office of Structural Materials for your project.

Inspected By:	Hall,Steven	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
