

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-004804**Date Inspected:** 25-Nov-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 430**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Le / Sun Bo**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:** Tower skins and PMT**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:

Tower bay 2

QA received Non Destructive Testing (NDT) notification document no. 001489 from ZPMC QC and performed 10% verification Ultrasonic Testing (UT) on the following weld joints:

(Lift 1 west tower skin C)

WSD1-SA294A/G-3A (B). All welds tested appeared to be compliant.

QA was informed by ZPMC CWI identified as Mr. Li Le that ZPMC UT technicians did not complete the UT of welds identified on the above mentioned NDT notification as WSD1-SA49C/D-15A (B), 12A(B), 9A(B) and 18A(B).

Tower bay 1

(Lift 1 north tower skin B)

NSD1-SA178A/D-025A (B). All welds tested appeared to be compliant.

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QA was informed by American Bridge Fluor (ABF) representative Mr. Don Walton that ZPMC personnel told him that the welds identified as NSD1-SA178A/D-4A (B). NSD1-SA178A/D-7A (B) on the above mentioned NDT notification were an error and that ZPMC would clarify it tomorrow 11/26/08.

OBG sub assembly bay 1

Due to ZPMC 22:30 ferry cancelation this QA monitored the Production Monitoring Test (PMT) for deck panels DP-338-001 and DP-122-001 on Gantry #2.

QA observed ZPMC qualified welding personnel performed the Gas Metal Arc Weld (GMAW) and Submerged Arc Weld (SAW) 3 Rib PMT# 1 for deck panels DP-338-001 and DP-122-001 on gantry #2. ZPMC welding personnel commenced welding PMT #1 for gantry # 2 at 00:13 hrs for the above mentioned deck panels. QC and QA visually inspected and accepted 500mm segments of each weld on this PMT panel. ZPMC's QC Ultrasonic Testing (UT) technician ultrasonically inspected and accepted the same 500mm segments of each weld based on the depth of penetration acceptance criteria for closed Rib to deck plate Partial Joint Penetration (PJP) welds specified in the contract documents. Caltrans waived the UT for this PMT today. QA laid-out, match marked and stenciled 5 macro specimens on each PMT rib. QA completed a U-Ribs PMT inspection report for this date and gantry. The report is on file in the Caltrans QA office. The welding parameters and welder ID's for Gantry 2 PMT #1 are as follows:

GMAW

Volts: 30.2 – 30.8 Amps: 354 – 390 Travel speed: 530mmpm

SAW

Volts: 24.8 – 27.8 Amps: 678 – 692 Travel speed: 517mmpm

Welder ID#'s

Weld joint 1: 059443

Weld joint 2: 059468

Weld joint 3: 059416

Weld joint 4: 059378

Weld joint 5: 059361

Weld joint 6: 062265

QA visually examined the Macro Etch samples for the above mentioned PMT after ZPMC and ABF inspectors examined and accepted the samples. All 15 samples appeared to comply with the contract documents.

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Summary of Conversations:

As mentioned 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 Ryan Smith, (858) 232-6799, who represents the Office of Structural Materials for your project.

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