

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-004527**Date Inspected:** 27-Aug-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Huang Wen Pang and Liu Hua Jie			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 and SAS Tower Fabrication		

Summary of Items Observed:

On this date, Caltrans Office of Structural Material (OSM) Quality Assurance (QA) Inspector Joselito Lizardo was present as requested to perform observations on the fabrication of Orthotropic Box Girder (OBG) and SAS Tower at Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China.

The QA Inspector has randomly observed the following activities on sub-assembly Bays mentioned below;

Bay 7: OBG - Floor Beam Sub Assembly

FCAW(2G) CJP welding repair on CJP of flange to web plate tee joint FB036-001-148 due to UT reject per welding repair report B-WR799 and following procedure WPS-345-FCAW-2G(2F)-REPAIR. ZPMC welder Zhang Qingquan ID #044774 was seen performing the repair.

FCAW(2F) fillet welding was observed on stiffener to web plate of CSD004-PP040-001 and CSD004-PP0380102/103 using 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H. ZPMC welder Li Xing ID #044815 was seen performing the task.

Tack welding/fit-up of unequal thickness (30:12mm) plate splices on floor beam FB010-012-036 and FB010-011-026 was in progress.

The QA Inspector randomly observed ZPMC welder Duan Xiu Zhi ID Number 050502, utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2221-B-L2c-S-2, to weld the fill pass on plate splice butt joint of floor beam sub-assembly FB016-018-021. QA Inspector randomly observed ZPMC CWI Huang Wen

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Pang monitoring weld parameters.

Bay 8: Tower Diaphragm

The QA Inspector randomly observed ZPMC Welders ID #068253, ID #066402, ID #067993 and ID #037992 utilizing the Shielded Metal Arc Welding (SMAW) Process in the 3G (Vertical Groove) Position with ZPMC WPS WPS-B-T-3313-Tc-P5 to weld tower double diaphragm PJP fill pass on 40mm thick web plate to 60mm thick stiffener plate tee joint SSD1-SA311 weld joints 15, 16, 17 and 18. The QA Inspector randomly observed ZPMC CWI Liu Hua Jie monitoring weld parameters.

SMAW tack welding of 75mm tower diaphragm plate splice butt joint WSD1-SA290 weld joint 13 using Excalibur E9018M H4R. This plate splice happened due to a mistake in plate cutting. The welding of this plate splice has been approved by Caltrans.

This QA observed three ZPMC welders, ID #048714, ID #045240 and ID #048433 utilizing the FCAW Process in the 2F (Horizontal) Position with a 1.4mm diameter electrode, filler metal brand K-71TSR, semi automatic with ZPMC WPS WPS-B-T-4132 to weld fillet fill pass on fillet weld connection between tower diaphragm plate to diaphragm flange WSD1-SA316A/B-2. The QA Inspector randomly observed ZPMC CWI Liu Hua Jie monitoring weld parameters.

Heat straightening was observed on tower double diaphragm SSD1-SA270 weld joints 1 and 2 due to welding distortion. Natural gas was used with heating temperature of less than 600 degree C following procedure HSR1(T)-3552.

Summary of Conversations:

No significant conversation occurred today.

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 Joshua Ishibashi, (858) 232-7081, who represents the Office of Structural Materials for your project.

Inspected By:	Lizardo,Josecito	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
