

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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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-004810**Date Inspected:** 27-Nov-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

<b>CWI Name:</b>	Lvliqing and Huang Wen Pang	<b>CWI Present:</b>	Yes	No
<b>Inspected CWI report:</b>	Yes No N/A	<b>Rod Oven in Use:</b>	Yes	No N/A
<b>Electrode to specification:</b>	Yes No N/A	<b>Weld Procedures Followed:</b>	Yes	No N/A
<b>Qualified Welders:</b>	Yes No N/A	<b>Verified Joint Fit-up:</b>	Yes	No N/A
<b>Approved Drawings:</b>	Yes No N/A	<b>Approved WPS:</b>	Yes	No N/A
		<b>Delayed / Cancelled:</b>	Yes	No N/A
<b>Bridge No:</b>	34-0006	<b>Component:</b>	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 Beams**

This QA performed 10% Magnetic Particle Testing (MT) of fillet/CJP welds on stiffener and flange to web plate of floor beam FB020-002-022~067, 071, 072, 077, 086~088 etc. This floor beam found deemed acceptable.

The QA Inspector randomly observed ZPMC welder Duan Xin 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 longitudinal diaphragm sub-assembly LD025-001-001. QA Inspector randomly observed ZPMC CWI Huang Wen Pang monitoring weld parameters.

**Bay 8: Tower Diaphragms**

This QA performed 10% Magnetic Particle Testing (MT) of PJP welds on tower double diaphragm for green tagging;

- a) NSD1-SA311B/B weld joints 5, 6, 9 and 10 – 40mm web plate to tower diaphragm plate
- b) NSD1-SA311A/B weld joints 16 and 18 – 60mm stiffener plate to tower diaphragm plate

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This diaphragm has been flip upside down for ZPMC/NDE to do the other half of the weld joints and others still need to be fixed due to >1mm undercut noted.

This QA Inspector randomly observed ZPMC welder ID #044774 utilizing the FCAW Process in the 2G (Hor. Groove) Position with WPS-B-T-2232-Tc-U4b-F and a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H, semi automatic to weld fill pass on web plate to flange tee joint on floor beam FB022-003-146. QA Inspector randomly observed ZPMC CWI Hu Wei Qing monitoring weld parameters.

The QA Inspector randomly observed ZPMC welder Xu Pei Pei ID Number 050323, utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-3221-B-U3c-S-1, to weld the CJP fill pass on 75mm thick plate splice butt joint of tower diaphragm WSD1-SA415-1A. QA Inspector randomly observed ZPMC CWI Lvliqing monitoring weld parameters.

SMAW(3G) butter welding tower diaphragm plate WSD1-SA290 + WSD1-SA301 due to 8.0mm short on length per welding repair report T-WR484 using WPS-485-SMAW-3G(3F)-REPAIR also in progress.

### 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.

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<b>Inspected By:</b>	Lizardo, Joselito	Quality Assurance Inspector
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<b>Reviewed By:</b>	Cuellar, Robert	QA Reviewer
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