

**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-002998**Date Inspected:** 22-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

<b>CWI Name:</b>	Chen Chih-Ming/Zhao Chen Sun/ <del>Chen Ming Pang</del>			<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

**Bridge No:** 34-0006**Component:** OBG side, bottom, deck panels, floor beams a**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 SAW on SEG-025A-003 BP-031 to BP-085 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: 29.5 Amps: 513 Travel speed: 467mm/min

QA observed ZPMC qualified welding personnel perform FCAW 3G welding on floor beam @ PP-025 FL2-1 to FL1 south joint# SSD-20-135 and FL2-1 to FL1 north joint# SSD-20A-131 following the guide lines of WPS# WPS-B-T-2233-B-U2-F. 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: 24.2 – 25.3 Amps: 214 - 215 Travel speed: 109 - 114mm/min

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QA observed ZPMC personnel splicing side panels SP-472 to SP-512 using the SMAW welding process. Other general observations include ZPMC personnel grinding side and bottom panels and weld bevel prep.

### OBG bay 4

QA observed ZPMC personnel flame straightening DP-033-001 following the guide lines of approved standard flame straightening procedure defined in ZPMC WQCP section 11 and recorded on heat straightening report# HSR1 (B)-1278. According to the report the distortion appeared to be caused by the welding process.

QA observed ZPMC personnel fit and SMAW tack weld inner flange on tower diaphragm identified as WSD1-SA234.

### OBG bay 7

QA observed ZPMC personnel fit and SMAW tack welding on floor beam FB4A.

QA observed ZPMC qualified welding personnel FCAW fillet welds on the following stiffener to floor beam web plate joints: FB-015-014-015 and FB-015-014-016.

QA observed ZPMC personnel fit and SMAW tack weld stiffeners to FB-009-009 and FB-009-001.

### OBG bay 8

QA observed ZPMC personnel fit and SMAW tack welding on floor beam web splices on the following joints: FB-090-002-032 and FB-080-001-032.

QA observed ZPMC personnel fit and SMAW tack welding component identified as LD-003-009-012.



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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.

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