

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

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-002504**Date Inspected:** 12-May-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2200**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	Shen Xue Jun			<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>	
<b>Inspected CWI report:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
				<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Bridge No:</b>	34-0006			<b>Component:</b>	Tower Skin Plates		

**Summary of Items Observed:**

On this date, Caltrans Office of Structural Materials (OSM) Quality Assurance (QA) Inspector Edward Leach was present to randomly observe and document the welding and Quality Control (QC) functions performed by ZPMC personnel relative to the fabrication of SAS Superstructure project. While on site, the QA Inspector noted the following work.

**New Tower Shop-Bay 2**

The QA Inspector observed ZPMC Ultrasonic Testing (UT) personnel performing full volumetric ultrasonic testing for the full length (100%) of two Complete Joint Penetration (CJP) longitudinal butt weld splice connections for tower skin plates designated as ESD1-SA77A/E-33A (33B) and ESD1-SA294A/G-1A. The QA Inspector observed ZPMC personnel using a 70 degree shear wave transducer/plastic wedge combination to examine the top quarter, middle half and bottom quarter of the weld on 45mm thick plates. Once the UT was completed, ZPMC personnel documented no relevant indications for either skin plate and the UT was accepted by ZPMC UT personnel Xue Hairong for both plates. The QA Inspector also performed full volumetric UT verification with a 70 degree shear wave transducer/plastic wedge combination to examine approximately 10% of the weld length that was ultrasonically scanned by ZPMC. No relevant indications were reported upon completion of this inspection and a TL-6027 UT report was generated on this date for these items.

**New Tower Shop-Bay 1**

The QA Inspector performed full volumetric UT verification with a 70 degree shear wave transducer/plastic wedge combination to examine approximately 10% of the weld length that was ultrasonically scanned by ZPMC UT personnel for the CJP longitudinal butt weld splice connection on tower skin plate SSD1-SA179D/E-10A(10B).

---

---

# WELDING INSPECTION REPORT

( Continued Page 2 of 2 )

---

---

The QA Inspector used 70 degree shear wave to examine the top quarter, middle half and bottom quarter of the 45mm plate. No relevant indications were reported upon completion of this inspection and TL-6027 UT report was generated on this date.

The QA Inspector also performed full volumetric UT verification with a 70 and a 45 degree shear wave transducer/plastic wedge combination to examine approximately 10% of the weld length that was ultrasonically scanned by ZPMC UT personnel for the CJP transitional butt weld splice connection on tower skin plate SSD1-SA159D/J-2A(2B). The QA Inspector also noted that ZPMC personnel accepted the weld joint after a previous UT rejection and weld repair. The QA Inspector used a 45 degree shear wave to examine the top quarter and a 70 degree shear wave to examine both the middle half and bottom quarter of the weld for the 90mm thick plate. No relevant indications were reported upon completion of this inspection and a TL-6027 UT report was generated for this item on this date.

The following pictures below detail the transitional butt splice weld and one of the longitudinal butt splices that were examined on this date.



### Summary of Conversations:

No relevant conversations this date.

### 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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

---

<b>Inspected By:</b>	Leach,Ed	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer

---