

**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-002708**Date Inspected:** 22-May-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>	Huang Wen Pang, Ye Yang 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>	Caltrans OBG, Tower	

**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Ken Jobes, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, to randomly monitor welding and Quality Control (QC) functions. While on site, the QA Inspector observed and/or discovered the following:

**OBG - Bay 3**

The Caltrans QA Inspector randomly observed the fitting and tacking of WT stiffeners on Bottom Plates BP 032-001 and BP 113-001 using the shielded metal arc welding process (SMAW), electrode classification E7018-1. Portable electrode ovens were being used and preheat was being administered.

**OBG - Bay 4**

The Caltrans QA Inspector also randomly observed the machine Submerged Arc Welding (SAW) of fill passes on Weld No. NSD1-SA333 A/B-1B 2B by welding operator Jiang Jing Teng (I. D. No. 046830), using Welding Procedure Specification (WPS) No. WPS-B-T-3221-B-U3c-S. The weld was being made in the flat groove (1G) welding position. Certified Welding Inspector (CWI), Zhao Chen Sun (CWI No. 07072091) was present during this welding. The QA Inspector verified the qualifications of the welding operator; and the parameters of amperage, voltage and travel speed.

**OBG - Bay 7**

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The Caltrans QA Inspector also randomly observed the magnetic particle inspection (MT) on tack welds by ZPMC MT technician, Jang Yao Qing, on the following Floor Beam Weld Nos.:

FB020-001-78/79, FB023-001-78/79, FB030-001-78/79, FB032-001-78/79, FB029-001-78/79, and FB027-001-78/79

ZPMC MT technician, Jang Yao Qing, was performing this inspection. Inspection was not completed during the time of observation.

The Caltrans QA Inspector also randomly observed the Flux Cored Arc Welding (FCAW) of fillet welds on diaphragm floor beams, Weld Nos. FB 014-008-038 and FB 014-008-017. ZPMC Certified Welding Inspector, Huang Wen Pang was present during this welding. The welders were Chen Chuan Song (I. D. No. 044824) and Zhang Liang. The welding procedure being used was WPS-B-T-2133.

OBG - Bay 8

The Caltrans QA Inspector also randomly observed the machine SAW of fill passes on Weld No. ESD1-SA348 -10A by welding operator Ma Ying (I. D. No. 045270), using Welding Procedure Specification (WPS) No. WPS-B-T-3221-B-U3c-S. The weld was being made in the flat groove (1G) welding position. Certified Welding Inspector (CWI), Ye Yang Jun (CWI No. 07031461) was present during this welding. The QA Inspector verified the qualifications of the welding operator; and the parameters of amperage, voltage and travel speed..

All above observations appeared to meet the requirements of the job specifications.



## Summary of Conversations:

As identified within the contents of this report.

## 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.

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**Inspected By:**      Jobes, Kenneth

Quality Assurance Inspector

**Reviewed By:**      Cochran, Jim

QA Reviewer