

**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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019027**Date Inspected:** 22-Dec-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Lv Li Qing**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**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance(QA) Inspector Mr. Shrikant Utekar 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. The QA Inspector observed and/or found the following:

BAY # 14

**MAGNETIC PARTICLE TESTING**

ZPMC NWIT No: 07881

This QA Inspector performed Magnetic Particle Testing (MT) of approximately 15% of the length previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an (MT) report on this date. The members are identified as OBG 13AW. The weld designations are as follows:

SEG3009B-010~015; SEG3009C-008, 010, 012~014; SEG3009D-010, 012, 011, 015; SEG3009E-008, 010, 014; SEG3009F-010~015; SEG3009G-010, 012, 014, 015, 016; SEG3009H-010~015; SEG3009J-010, 012, ~016.

This QA Inspector randomly observed the following work in progress.

OBG 13EAST

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066422 performing the Shielded Metal

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

---

Arc Welding process on weld 144 located at PCMK SEG3007Q. ZPMC QC Mr. Lv Li Qing was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-2G (2F)-Fcm-Repair. Weld Repair report identified as B-WR19219.

This Quality Assurance (QA) Inspector observed ZPMC qualified welders 067765, 066258, 069683 performing the Shielded Metal Arc Welding process on weld 002 located at PCMK SEG3011U. ZPMC QC Mr. Lv Li Qing was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2214-Tc-u4b-Fcm-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 055564 performing the Flux Cored Arc Welding process on weld 236 located at PCMK SEG3019D-1. ZPMC QC Mr. Lv Li Qing was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB

This Quality Assurance (QA) Inspector observed ZPMC personnel performing heat straightening, members identified as lifting lug. Distortion appeared to be caused by welding. ZPMC Quality Control (QC) inspector identified as Mr. Lv Li Qing was present to monitor the heat straightening process. The heat straightening appeared to comply with heat straightening Report HSR1 (B)-9976. Weld number was identified as SEG3009L-069.

### OBG 14 EAST

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 217805 performing the Flux Cored Arc Welding process on weld 069 located at PCMK SEG3019W. ZPMC QC Mr. Zhong Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2132-ESAB.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 044824 performing the Flux Cored Arc Welding process on weld 323 located at PCMK SEG3019D-1. ZPMC QC Mr. Zhong Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2232-ESAB.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 070432 performing the Shielded Metal Arc Welding process on weld 035 located at PCMK SEG3019BB. ZPMC QC Mr. Zhong Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2213-Tc-u4b-Fcm-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 070007 performing the Shielded Metal Arc Welding process on weld 014 located at PCMK SEG3019Z. ZPMC QC Mr. Zhong Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2212-Tc-u4b-Fcm-1.

This QA Inspector observed that the cope hole on SA3357~SA3365 is beveled up to the top of floor beam (FB3262) flange (X4556B). As per approved shop drawing of floor beam (FB3262) and SA3357~SA3365 location of the cope hole supposed to be at bottom side of floor beam flange of FB3262. For additional detail see attached photos. This QA Informed to lead QA, ZPMC QC (CWI) & ABF QA.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract

---

---

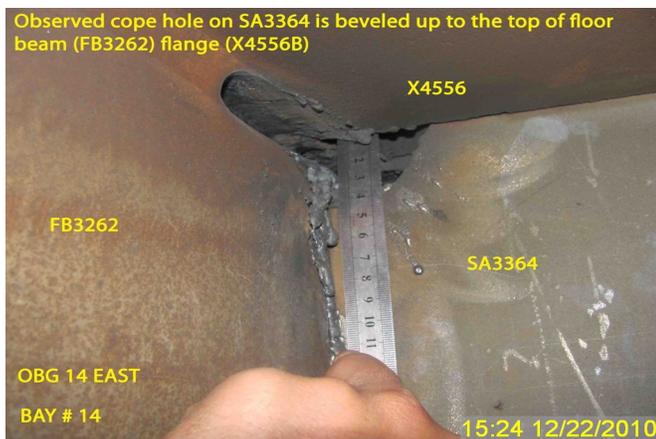
# WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

---

---

documents.



### Summary of Conversations:

No significant conversations were reported on 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 Eric Tsang, +(86) 1500 042 2372, who represents the Office of Structural Materials for your project.

---

**Inspected By:** Utekar, Shrikant

Quality Assurance Inspector

---

**Reviewed By:** Patterson, Rodney

QA Reviewer