

**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-022901**Date Inspected:** 05-Apr-2011**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:** Gang Wei**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

This QA Inspector randomly observed the following work in progress.

OBG 14EAST

This Quality Assurance (QA) Inspector observed ZPMC personnel performed Ultrasonic testing on the weld joints between vertical shear plates to top anchorages plates. Weld numbers identified as SEG3019BB-177, 155, 133, 111, 089, 067, 045, 023, and 001. This QA Inspector observed during the ultrasonic testing of the welds ZPMC personnel discovered four rejectable indications in the weld SEG3019BB-001, two rejectable indications in the weld SEG3019BB-023, three rejectable indications in the weld SEG3019BB-045, Three rejectable indications in the weld SEG3019BB-067, four rejectable indications in the weld SEG3019BB-111, two rejectable indications in the weld SEG3019BB-133 one of that having length approximately 1700mm, seven rejectable indications in the weld SEG3019BB-155 and two rejectable indications in the weld SEG3019BB-177. This QA Inspector observed ABF personnel performing Magnetic particle testing on the excavated area for the above rejectable indications.

---

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

---

---

This QA Inspector observed ZPMC installed/ erected DP3157, DP3158 and DP3159 in OBG 14 East.

### SHIELDED METAL ARC WELDING PROCESS.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 068764 performing the Shielded Metal Arc Welding process on weld 009 located at PCMK SEG3019B. ZPMC QC Mr. Zhu Yuan Yuan 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 037723 performing the Shielded Metal Arc Welding process on weld 009 located at PCMK SEG3019C. ZPMC QC Mr. Zhu Yuan Yuan 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 043661 performing the Shielded Metal Arc Welding process on weld 004 located at PCMK SEG3019M. ZPMC QC Mr. Zhu Yuan Yuan was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2212-Tc-u3b-Fcm.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 067571 performing the Shielded Metal Arc Welding process on weld 138 located at PCMK SEG3019AW. ZPMC QC Mr. Zhu Yuan Yuan 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 044779 performing the Shielded Metal Arc Welding process on weld 057 located at PCMK SEG3019Y. ZPMC QC Mr. Zhu Yuan Yuan was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2212-B-u2-Fcm-1.

### FLUX CORED ARC WELDING PROCESS.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 051356 performing the Flux Cored Arc Welding process on weld 002 located at PCMK SEG3019AY. ZPMC QC Mr. Zhu Yuan Yuan was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2232-ESAB.

### HEAT STRAIGHTENING

This Quality Assurance (QA) Inspector observed ZPMC personnel performing heat straightening, member identified as deck plates (DP3161, DP3167 and DP3160). Distortion appeared to be caused by welding. ZPMC Quality Control (QC) inspector identified as Mr. Zhu Yuan Yuan was present to monitor the heat straightening process. The heat straightening appeared to comply with heat straightening Report HSR1 (B)-0464.

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

---

# WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

---



## 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.

---

<b>Inspected By:</b>	Utekar,Shrikant	Quality Assurance Inspector
<b>Reviewed By:</b>	Peterson,Art	QA Reviewer

---