

**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-016952**Date Inspected:** 15-Sep-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**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:** Tower and OBG Components**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA Inspector) George Goulet was present during the times noted above for observations relative to the work being performed.

Bay 10

This QA Inspector randomly observed the following work in progress in Bay 10:

SAW welding of weld joint SEG3013AC-002, side B located on PCMK OBG segment 13AW, bottom plate. Tandom welders were identified as 250050, 045270. QC was identified as ZPMC CWI Lu Li Qing (QC1). Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Zhong Guo Hui (QCA1), who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-2221-B-U3c-S-2. The weld was being kept at or above the minimum preheat and interpass temperature with electric heaters placed below the plates at the weld.

ABF Representative Kelvin Cheung notified this QA Inspector that weld joint SEG3013AC-002, side B located on PCMK OBG segment 13AW, bottom plate was finished and ABF MT (magnetic particle testing) technicians would perform 100% MT on side A of the weld after rotating the plate to bring side A facing upward. This QA Inspector witnessed the ABF technicians perform MT on side B of the weld joint, then this QA Inspector performed random VT (visual testing) and MT on side B of the same weld. ABF MT technicians and this QA Inspector concurred that no apparent indications were observed.

SMAW tack welding during fit-up of weld joints BP3094-001-39~42, 92~95, 145~148, located on PCMK OBG

---

---

# WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

---

---

bottom plate to I stiffeners. Welder was identified as 056200. QC was identified as ZPMC CWI Fu Guo Gang (QC2). Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC Li Peng Fei (QCA2), who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-B-P-2112.

## Heavy Dock

This QA Inspector randomly observed the following work being performed on the Heavy Dock:

SMAW welding of temporary staging brace located on PCMK north tower, lift 4, skin C, at approximately 144M elevation as the segment was positioned horizontally on the deck of the dock. See photo below. Welders were identified as 040365, 052910. QC was identified as ZPMC CWI Zhao Chen Sun (QC3). Welding variables recorded by QC3 appeared to comply with WPS-B-P-4114.

All 4 towers' lift 3 were connected and positioned vertically on a base pedestal at end of the Heavy Dock. East and south towers, lift 4 were positioned on top of east and south towers, lift 3, respectively, on the Heavy Dock, near the end where the ship was moored. All 4 towers' lift 2 were positioned horizontally on the deck of the ship at the end of the Heavy Dock. OBG9W was positioned on top of OBG 9E on the deck of the ship. CB11 and CB12 were also positioned on the deck of the the ship. The 4000 ton floating crane was moored outboard of the ship and appeared to be idle. ZPMC welders aboard the ship were welding on stanchions alongside OBG segment 9AE.

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



## Summary of Conversations:

No significant conversations.

## 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 Micheal Ng, 159-2184-5703, who represents the Office of Structural Materials for your project.

---

---

# WELDING INSPECTION REPORT

*( Continued Page 3 of 3 )*

---

---

---

<b>Inspected By:</b>	Goulet, George	Quality Assurance Inspector
<b>Reviewed By:</b>	Clifford, William	QA Reviewer

---