

**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-025939**Date Inspected:** 30-May-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:** Lu Hua Jie**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:

## TRIAL ASSEMBLY YARD

## ULTRASONIC TESTING

## OBG 13 EAST

ZPMC NWIT No: 09304

This QA Inspector performed Ultrasonic Testing (UT) of approximately 10% of the length previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an (UT) report on this date. The members are identified as OBG 13East. The weld designations are as follows:

SEG3011L-241, 268

SEG3011J-300

SEG3011G-300

SEG3011E-259, 260, 262

SEG3009C-263

---

---

# WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

---

---

VP3005-001-003

This QA Inspector randomly observed the following work in progress.

OBG 14EAST

SHIELDED METAL ARC WELDING PROCESS.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 067656 performing the Shielded Metal Arc Welding process on weld 170 located at PCMK SEG3019E-1. 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-u4b-Fcm-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 215553 performing the Shielded Metal Arc Welding process on weld 019 located at PCMK SEG3019\*. 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-u4b-Fcm-1.

WELD REPAIR

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 044779 performing the Shielded Metal Arc Welding process on weld 003 located at PCMK SEG3019AH. ZPMC QC Mr. Zhu Yuan Yuan was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-2G (2F)-Fcm-Repair-1. Weld repair report identified as B-WR21107.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 216086 performing the Shielded Metal Arc Welding process on weld 017 located at PCMK SEG3019\*. ZPMC QC Mr. Zhu Yuan Yuan was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-4G (4F)-Fcm-Repair-1. Weld repair report identified as B-WR21051.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066733 performing the Shielded Metal Arc Welding process on weld 006 located at PCMK SEG3019AL. ZPMC QC Mr. Zhu Yuan Yuan was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-4G (4F)-Fcm-Repair-1. Critical Weld repair report identified as B-CWR3006.

INCIDENT

OBG 14 East and OBG 14 West

During the Quality Assurance (QA) random in-process observations of the fabrication of OBG segment 14East and OBG segment 14 West in Trial assembly yard; this Caltrans QA Inspector observed the ZPMC tacked splice plates with top anchorage plates and Rib stiffeners (RS3266A) without engineer approval. The top anchorage plates are designated as Seismic Performance Critical Material (SPCM). Rib stiffeners (RS3266A) are designated as Seismic Performance Critical Material (SPCM). Incident report was issued.

See attached photographs for additional detail.

---

---

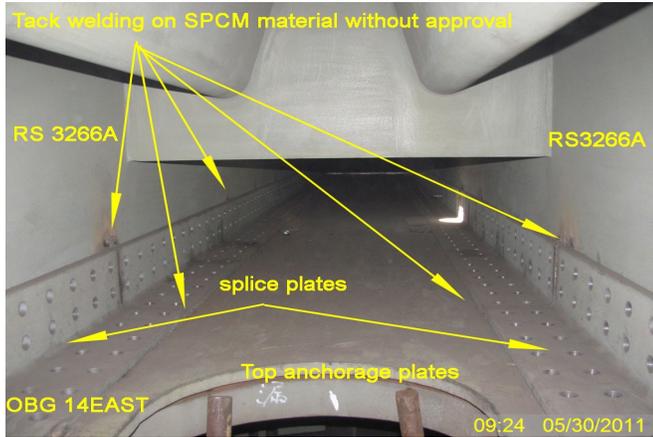
# WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

---

---

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

QA Reviewer