

**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-019151**Date Inspected:** 07-Jan-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**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

**ULTRASONIC TESTING**

ZPMC NWIT No: 08079

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 13AE. The weld designations are as follows:

SEG3007AV-102, 094, 091

This QA Inspector randomly observed the following work in progress.

**OBG 14EAST**

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 067764 performing the Shielded Metal Arc Welding process on weld 166 located at PCMK SEG3019E-1. ZPMC QC Mr. Wang Xu was monitoring this

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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 133 located at PCMK SEG3019R. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-3G (3F)-Fcm-Repair-1. Critical weld repair report identified as B-CWR 2670.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066443 performing the Shielded Metal Arc Welding process on weld 077 located at PCMK SEG3019L-1. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-3G (3F)-Fcm-Repair-1. Critical weld repair report identified as B-CWR2643.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066673 performing the Shielded Metal Arc Welding process on weld 085 located at PCMK SEG3019K-1. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-3G (3F)-Fcm-Repair-1. Critical weld repair report identified as B-CWR2645.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 201087 performing the Shielded Metal Arc Welding process on weld 079 located at PCMK SEG3019BB. ZPMC QC Mr. Wang Xu 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 101 located at PCMK SEG3019BB. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2213-Tc-u4b-Fcm-1.

During the random visual inspection of the OBG 14 east this QA Inspector observed the root gap for the fillet weld between web of the FB3282 and LD3042 was measured approximately in between 10 to 14mm. This QA informed ABF QA and QA lead (CT) regarding this issues, according to ABF QA they will convert this weld to complete joint penetration (CJP) weld. For more detail see attached photos.

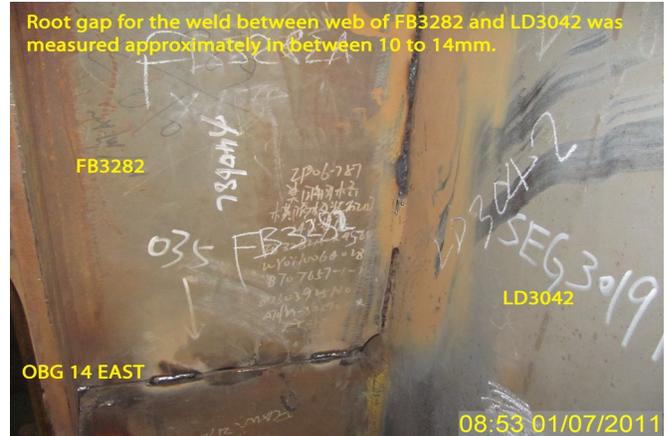
Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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## 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.

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**Inspected By:** Utekar, Shrikant

Quality Assurance Inspector

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**Reviewed By:** Patterson, Rodney

QA Reviewer