

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-022010**Date Inspected:** 20-Feb-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:** 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: 08348

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 14East. The weld designations are as follows:

SEG3019AA-001

This QA Inspector randomly observed the following work in progress.

OBG 14EAST

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 068097 performing the Shielded Metal

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Arc Welding process on weld 004 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-2214-Tc-u5b-Fcm.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 068917 performing the Shielded Metal Arc Welding process on weld 008 located at PCMK SEG3019X. ZPMC QC Mr. Zhong Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2214-Tc-u5b-Fcm.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066179 performing the Shielded Metal Arc Welding process on weld 127 located at PCMK SEG3019AB. ZPMC QC Mr. Zhong Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2214-Tc-u5b-Fcm.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 067079 performing the Flux Cored Arc Welding process on weld 048 located at PCMK SEG3019AJ. ZPMC QC Mr. Zhong Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-FCAW-3G (3F)-ESAB-Repair. Weld repair report identified as B-WR20245.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066326 performing the Shielded Metal Arc Welding process on weld 007 located at PCMK SEG3019AG. ZPMC QC Mr. Zhong Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-3G (3F)-Fcm-Repair-1. Weld repair report identified as B-WR20252.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066236 performing the Flux Cored Arc Welding process on weld 100 located at PCMK SEG3019G. ZPMC QC Mr. Zhong Guo Hui 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 qualified welder 066912 performing the Flux Cored Arc Welding process on weld 017 located at PCMK FB3287-001. 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 066439 performing the Flux Cored Arc Welding process on weld 011 located at PCMK SEG3019BC. 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 067079 performing the Flux Cored Arc Welding process on weld 249 located at PCMK SEG3019H. ZPMC QC Mr. Zhong Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

This QA Inspector observed ZPMC personnel performing air carbon arc gouging for ultrasonic testing repair of the weld between AP3031 and SA3359, Weld number identified as SEG3019BB-047.

This QA Inspector observed ZPMC personnel performing ultrasonic testing for the weld between edge panels "I"

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rib stiffeners to FB3260 at PP125.

This QA Inspector observed installation/ erection of the FB3271 was in progress in OBG 14 east.

This QA Inspector observed ZPMC had performed Ultrasonic testing for the weld between vertical shear plates SA3362, SA3363, SA3364, SA3365 and AP3031, weld number identified as SEG3019BB-113, 135, 157, 179 respectively, this QA Inspector observed ZPMC has discovered 6 rejectable longitudinal linear indications in weld SEG3019BB-113, 4 rejectable longitudinal linear indications in the weld SEG3019BB-135, 6 rejectable longitudinal linear indications in the weld SEG3019BB-157 and 3 rejectable longitudinal linear indications in the weld SEG3019BB-179.

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.

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

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