

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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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-018152**Date Inspected:** 27-Oct-2010**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:

## ULTRASONIC TESTING

BAY # 14

ZPMC NWIT: 07134

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 vertical plate. The weld designations are as follows:

VP3017-001-004~006

## GREEN TAG

This QA Inspector issued the following green tag for OBG components after completing the NDT requirements are:

1. VP3017-001-004~006-Green tag No-15171

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This QA Inspector randomly observed the following work in progress.

BAY # 14

OBG 14EAST

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 044771 performing the Submerged Arc Welding process on weld 024 located at PCMK SEG3019AQ. ZPMC QC Mr. Lv Li Qing was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2221-B-L2c-s-2.

OBG 13EAST

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 054013 performing the Shielded Metal Arc Welding process on weld 004 located at PCMK VP3007-001. ZPMC QC Mr. Lv Li Qing was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-2G (2F)-Fcm-Repair. Weld repair report identified as B-WR16219.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 201087 performing the Shielded Metal Arc Welding process on weld 045 located at PCMK VP3007-001. ZPMC QC Mr. Lv Li Qing was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-2G (2F)-Fcm-Repair. Weld repair report identified as B-WR16227.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 049339 performing the Shielded Metal Arc Welding process on weld 058 located at PCMK VP3007-001. ZPMC QC Mr. Lv Li Qing was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-2G (2F)-Fcm-Repair. Weld repair report identified as B-WR16237.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 067079 performing the Flux Cored Arc Welding process on weld 073 located at PCMK SEG3009J. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2133.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066695 performing the Flux Cored Arc Welding process on weld 018 located at PCMK SEG3009H. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2133.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 068994 performing the Flux Cored Arc Welding process on weld 074 located at PCMK SEG3009G. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2133.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 200113 performing the Shielded Metal Arc Welding process on weld 035 located at PCMK SEG3009J. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2113-Fcm-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 043661 performing the Shielded Metal Arc Welding process on weld 050 located at PCMK SEG3009G. 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-2113-Fcm-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 020009 performing the Shielded Metal Arc Welding process on weld 015 located at PCMK SEG3009B. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2113-Fcm-1.

During the random visual inspection this QA inspector observed root gap between various bottom panel rib stiffeners to the floor FB3138 was measured 8 to 11 mm. This QA Inspector informed to ABF QA and ZPMC QC (CWI) about this.

## OBG 14WEST

This Quality Assurance (QA) Inspector observed ZPMC personnel performing heat straightening, member identified as SEG3020AW-091. Distortion appeared to be caused by welding. ZPMC Quality Control (QC) inspector identified as Mr. Shao Jian Yuan was present to monitor the heat straightening process. The heat straightening appeared to comply with heat straightening Report HSR1 (B)-9696.

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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**Inspected By:** Utekar,Shrikant Quality Assurance Inspector

**Reviewed By:** Patterson,Rodney QA Reviewer

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