

**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-021997**Date Inspected:** 12-Mar-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:** Mr. An Qing Xian.**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:** Orthotropic Box Girder (OBG)**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad 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 Chang xing Island in Shanghai, China. QA observed and/or found the following:

**BAY # 14**

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as OBG Segment 13AE. The weld designations reviewed are as follows.

SEG3007K-086, 091, 094

SEG3007K-098, 099, 100, 101, 102, 103, 038, 039

NDT Notification No-08526

This QA Inspector observed the following work in progress:

**OBG 14EAST**

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066418 performing the Shielded Metal Arc Welding process on weld 039 located at PCMK SEG3019BB. ZPMC QC Mr. Zhu Yuan Yuan was

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## WELDING INSPECTION REPORT

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monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2212-Tc-u5b-Fcm-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 037997 performing the Shielded Metal Arc Welding process on weld 083 located at PCMK SEG3019BB. 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-u5b-Fcm-1

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 070006 performing the Shielded Metal Arc Welding process on weld 100 located at PCMK SEG3019AW. 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 066163 performing the Shielded Metal Arc Welding process on weld 105 located at PCMK SEG3019AW. ZPMC QC Mr. Zhu Yuan Yuan 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 066236 performing the Flux Cored Arc Welding process on weld 264 located at PCMK SEG3019E-2. ZPMC QC Mr. Zhu Yuan Yuan 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 066763 performing the Flux Cored Arc Welding process on weld 042 located at PCMK SEG3019Z. ZPMC QC Mr. Zhu Yuan Yuan was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2231-ESAB.

This QA Inspector observed installation /mounting of bearing block in progress at AP3031.

This Quality Assurance (QA) Inspector observed ZPMC personnel performing heat straightening, member identified as Anchor plate AP3004. Distortion appeared to be caused by welding. Weld number identified as SEG3019X-004~009. ZPMC Quality Control (QC) inspector identified as Mr. Zhong Guo Hui was present to monitor the heat straightening process. The heat straightening appeared to comply with heat straightening Report HSR1 (B)-10173.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066418 performing the Shielded Metal Arc Welding process on weld 003 located at PCMK SEG3019U. 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. Critical Weld repair report identified as B-CWR2822-Rev-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066439 performing the Flux Cored Arc Welding process on weld 004 located at PCMK SEG3019U. 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 066733 performing the Flux Cored Arc

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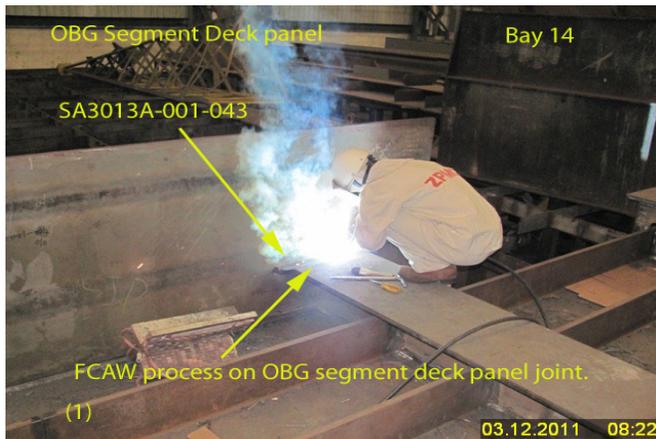
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Welding process on weld 250 located at PCMK SEG3019AZ. ZPMC QC Mr. Zhong Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 067079 performing the Flux Cored Arc Welding process on weld 043 located at SA3013A-001. ZPMC QC Mr. Xie Ming Feng was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2232-ESAB. For more information see below attached photo number 1.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



### Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

### 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 Thomas Ho: 150002048250, who represents the Office of Structural Materials for your project.

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

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