

**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-023821**Date Inspected:** 16-Apr-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:** An Qing Xiang**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 Components**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector, Anand Upadhye was present during the times noted above for observations relative to the work being performed.

**WELDING**

This QA Inspector observed the following work in progress:

**BAY 14**

This QA Inspector observed ZPMC qualified welding personnel identified as 045270 perform welding by Submerged Arc Welding (SAW), on Deck panel DP3174 to Deck panel DP3175 weld of OBG Segment 14W. Weld joint is identified as SEG3020-008. ZPMC Quality Control (QC) Inspector identified as Liu Fang was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-T-223(2)1T-ESAB-1. See attached picture.

This QA Inspector observed ZPMC qualified welding personnel identified as 067580 perform welding by Shielded Metal Arc Welding (SMAW), on Deck panel diaphragm to Floor beam flange weld at panel point 127, of OBG Segment 14W. Weld joint is identified as SEG3020M-009. ZPMC Quality Control (QC) Inspector identified as Liu Fang was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-P-2212-Tc-U4b-FCM-1. This QA Inspector noted welding variables were 140~150 amperes and 24.6 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 045246, 066361 perform repair

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welding by Shielded Metal Arc Welding (SMAW), on Anchor plate to Side plate weld of OBG Segment 14W. Weld joint is identified as SEG3020AQ-025. ZPMC Quality Control (QC) Inspector identified as Liu Fang was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-345-SMAW-1G (1F)-FCM-Repair-1 and Critical welding repair report B-CWR2923 Rev 0. This QA Inspector noted welding variables were 145~160 amperes and 24.3 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 066261 perform welding by Shielded Metal Arc Welding (SMAW), on Extension plate of vertical shear plate to Anchor plate weld of OBG Segment 14W. Weld joint is identified as SEG3020U-048. ZPMC Quality Control (QC) Inspector identified as Liu Fang was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-P-2214-Tc-U4b-FCM-1. This QA Inspector noted welding variables were 135~150 amperes and 24.6 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 037932 perform welding by Shielded Metal Arc Welding (SMAW), on Extension plate of vertical shear plate to Anchor plate weld of OBG Segment 14W. Weld joint is identified as SEG3020U-066. ZPMC Quality Control (QC) Inspector identified as Liu Fang was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-P-2214-Tc-U4b-FCM-1. This QA Inspector noted welding variables were 130~140 amperes and 24.9 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 066881 perform welding by Flux Cored Arc Welding (FCAW), on Deck panel diaphragm to Deck panel diaphragm weld at panel point 127.5, of OBG Segment 14W. Weld joint is identified as SEG3020H-010. ZPMC Quality Control (QC) Inspector identified as An Qing Xiang was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-T-2233-ESAB. This QA Inspector noted welding variables were 240~265 amperes and 25.4 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 067275 perform welding by Flux Cored Arc Welding (FCAW), on Deck panel diaphragm to Deck panel diaphragm weld at panel point 128, of OBG Segment 14W. Weld joint is identified as SEG3020F-014. ZPMC Quality Control (QC) Inspector identified as An Qing Xiang was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-T-2233-ESAB. This QA Inspector noted welding variables were 245~260 amperes and 25 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 066695 perform welding by Flux Cored Arc Welding (FCAW), on Traveler Rail TR3001. Weld joint is identified as TR3001-TR2-001-051/052. ZPMC Quality Control (QC) Inspector identified as An Qing Xiang was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-T-2133-ESAB. This QA Inspector noted welding variables were 230~245 amperes and 25.4 volts, which appears to be in compliance with the approved WPS.

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, phone: 15000422372 , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Upadhye, Anand	Quality Assurance Inspector
<b>Reviewed By:</b>	Clifford, William	QA Reviewer

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