

**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-022314**Date Inspected:** 15-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:** 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 037779 perform welding by Shielded Metal Arc Welding (SMAW), on side plate to vertical plate weld of OBG Segment 14W. Weld joint is identified as SEG3020AW-089. ZPMC Quality Control (QC) Inspector identified as Zhu Lin 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 160~170 amperes and 24.3 volts, which appears to be in compliance with the approved WPS. See attached picture.

This QA Inspector observed ZPMC qualified welding personnel identified as 067942, 067765 perform welding by Shielded Metal Arc Welding (SMAW), on side plate to vertical plate weld of OBG Segment 14W. Weld joint is identified as SEG3020AW-092. ZPMC Quality Control (QC) Inspector identified as Zhu Lin 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 120~135 amperes and 23.2 volts, which appears to be in compliance with the approved WPS.

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This QA Inspector observed ZPMC qualified welding personnel identified as 047866 perform welding by Flux Cored Arc Welding (FCAW), on floor beam to side plate weld of OBG Segment 14W, after back gouging. Weld joint is identified as SEG3020C-056. 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 230~245 amperes and 22.8 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 048433 perform welding by Flux Cored Arc Welding (FCAW), on deck panel diaphragm to deck panel diaphragm weld of OBG Segment 13CW. Weld joint is identified as SEG3015B-006, 007. ZPMC Quality Control (QC) Inspector identified as Wang Xiang Pin 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 230~247 amperes and 22.7 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 048696 perform welding by Flux Cored Arc Welding (FCAW), on deck panel diaphragm to deck panel diaphragm weld of OBG Segment 13CW. Weld joint is identified as SEG3015H-008, 009. ZPMC Quality Control (QC) Inspector identified as Wang Xiang Pin 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 225~240 amperes and 24.2 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 067572, 067609, 069896 perform welding by Shielded Metal Arc Welding (SMAW), on floor beam to floor beam flange weld of OBG Segment 14W. Weld joint is identified as FB3316-001-010, 095. 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-P-2114-FCM-1. This QA Inspector noted welding variables were 130~140 amperes and 24.1 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 066695 perform repair welding by Shielded Metal Arc Welding (SMAW), on vertical shear plate to anchor plate weld of OBG Segment 14W. Weld joint is identified as SEG3020BB-113. 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-345-SMAW-3G (3F)-FCM-Repair-1 and welding repair report B-WR20409. This QA Inspector noted welding variables were 145~160 amperes and 22.3 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified NDT personnel perform Magnetic particle testing on deck panels DP3172 and DP3173 of OBG Segment 14W. Weld joints are identified as DP3172-001-020, 021 and DP3173-001-021. See attached picture.

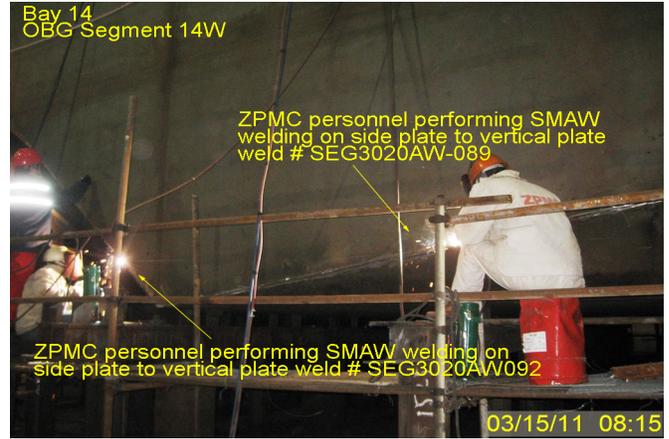
Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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# WELDING INSPECTION REPORT

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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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