

**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-022318**Date Inspected:** 18-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.

NDT

BAY 14

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted notification number 08570.

Magnetic Particle Testing (MT).

This QA inspector performed MT of approximately 15 % of the area previously tested and accepted by ZPMC Quality control personnel. This QA inspector generated MT report for this date. The members are identified as Cross beam Components. The weld designations reviewed are as follows:

CB3002K-004-263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276.

CB3002K-004-047, 048, 049, 050, 051, 052, 053, 054, 055, 056.

CB3002K-004-277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302.

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## WELDING

This QA Inspector observed the following work in progress:

### BAY 14

This QA Inspector observed ZPMC qualified welding personnel identified as 048696, 048433, 203871 perform welding by Flux Cored Arc Welding (FCAW), on Deck panel diaphragm to floor beam flange weld of OBG Segment 13CW. Weld joint is identified as SA3232A-003. 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-2232-ESAB. This QA Inspector noted welding variables were 280~290 amperes and 23.7 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 045143 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 SEG3015G-013. 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 240~265 amperes and 24.8 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 Deck panel to deck panel weld of OBG Segment 13CW. Weld joint is identified as SEG3015-007. ZPMC Quality Control (QC) Inspector identified as Zhang 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-B-U2-FCM-1. This QA Inspector noted welding variables were 140~155 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 066361 perform welding by Shielded Metal Arc Welding (SMAW), on Deck panel to deck panel weld joining OBG Segment 13BW and 13CW. Weld joint is identified as OBW13-016. ZPMC Quality Control (QC) Inspector identified as Zhang 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-B-U2-FCM-1. This QA Inspector noted welding variables were 130~150 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 067949 perform welding by Flux Cored Arc Welding (FCAW), on Bottom plate I-rib to floor beam weld of OBG Segment 14W. Weld joint is identified as SEG3020M-156, 162. 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-T-2233-ESAB. This QA Inspector noted welding variables were 255~265 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 069896 perform welding by Shielded Metal Arc Welding (SMAW), on Side plate I-rib to floor beam weld of OBG Segment 14W. Weld joint is identified as SEG3020A1-251, 252. 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-2213-Tc-U4b-FCM-1. This QA Inspector noted welding variables were 125~140 amperes and 22.8

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# WELDING INSPECTION REPORT

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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.

**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
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<b>Reviewed By:</b>	Clifford,William	QA Reviewer
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