

**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 #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-022616**Date Inspected:** 21-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) Chanxing Island**Location:** Shanghai, China**CWI Name:** Mr. Sha Zhi**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 Segment**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA), Vibin Kumar Selvanayaham, was present during the times noted above for observations relative to the work being performed.

Magnetic Particle Testing (MT) – NWIT Document No's: 008588

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as OBG Segment 14W. The weld designations reviewed are as follows:

1. SEG3020AJ-253, 248, 243, 238, 220
2. SEG3020N-111, 113, 115, 117, 119

Ultrasonic Testing (UT) – NWIT Document No: 008586

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The members are identified as OBG Segment 14W. The weld designations reviewed are as follows:

1. SEG3020Y-022
2. SEG3020AJ-437, 441, 442, 264, 265, 446, 447, 451, 452, 159, 172
3. SEG3020AJ-208, 221, 234, 235, 239, 240, 244, 245, 249, 250, 254, 255

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## WELDING INSPECTION REPORT

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Bay 14

This QA Inspector observed the following work in progress:

Shielded Metal Arc Welding (SMAW) welding of weld joint SEG3020BB-002 located on Vertical Shear Plate to Anchor Plate of OBG Segment 14W. ZPMC Welders are identified as 067609 and 066775. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2214-B-U2-FCM-1.

SMAW welding of weld joint SEG3020AG-009 located on Edge plate to Side Plate of OBG Segment 14W. ZPMC Welder is identified as 067942 and 067942. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2214-Tc-U4b-FCM-1.

SMAW welding of weld joint SEG3020G-012 and 013 located on Edge plate to Floor Beam at panel point 127.5 to 128 of OBG Segment 14W. ZPMC Welder is identified as 067942 and 069683. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2114-FCM-1.

SMAW welding of weld joint SEG3020E-119 and 120 located on Edge plate to Floor Beam at panel point 127.5 to 128 of OBG Segment 14W. ZPMC Welder is identified as 067942 and 069683. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2114-FCM-1.

Flux Core Arc Welding (FCAW) welding of weld joint SEG3014F-005 located on Deck Panel Diaphragm to Floor Beam of OBG Segment 13BW. ZPMC Welder is identified as 203871. ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2232-ESAB.

FCAW welding of weld joint SA3232A-003 located on Deck Panel Diaphragm to Floor Beam at panel point 124 of OBG Segment 13CW. ZPMC Welder is identified as 048433. ZPMC Quality Control (QC) is identified as Mr. Wang Xing Pin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2232-ESAB.

SMAW welding of weld joint SEG3014J-012 located on Deck Panel Diaphragm to Deck Panel Diaphragm of OBG Segment 13BW. ZPMC Welder is identified as 066443. ZPMC Quality Control (QC) is identified as Mr. Wang Xing Pin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2213-B-U2-FCM-1.

SMAW welding of weld joint SEG3014-006 located on Deck Panel to Deck Panel of OBG Segment 13BW. ZPMC Welder is identified as 066443. ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2214-B-U2-FCM-1.

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Submerged Arc Welding (SAW) welding of weld joint SEG3020AQ-030 located on Anchor Plate to Anchor Plate of OBG Segment 14W. ZPMC Welder is identified as 045270. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Ling. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2221-B-L2c-S-2. See the attached pictures.

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

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| <b>Inspected By:</b> | Kumar,Vibin   | Quality Assurance Inspector |
| <b>Reviewed By:</b>  | Patel,Hiranch | QA Reviewer                 |

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