

**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-021036**Date Inspected:** 22-Feb-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. Qui Wen**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.

Ultrasonic Testing (UT) – NWIT Document No: 008364

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. SEG3020BB-001

Bay 14

This QA Inspector observed the following work in progress:

Shielded Metal Arc Welding (SMAW) repair welding of weld joint SEG3020BB-073 located on Bottom Plate to Vertical Shear Plate of OBG Segment 14W. ZPMC Welder is identified as 045246. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-2G-(2F)-FCM-Repair, which is used as per Critical Welding Repair (CWR) B-CWR-2752.

SMAW repair welding of weld joint SEG3020BB-037 located on Bottom Plate to Vertical Shear Plate of OBG

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Segment 14W. ZPMC Welder is identified as 067942. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-2G-(2F)-FCM-Repair, which is used as per Critical Welding Repair (CWR) B-CWR-2752.

SMAW repair welding of weld joint SEG3020H-090 located on Bottom Plate RS stiffener at panel point 127.5 of OBG Segment 14W. ZPMC Welder is identified as 067707. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-2G-(2F)-FCM-Repair, which is used as per Welding Repair Report (WRR) B-WRR-20251.

Flux Core Arc Welding (FCAW) welding of weld joint SEG3020BB-112 located on Anchor plate to Vertical Shear Plate of OBG Segment 13AW. ZPMC Welder is identified as 066695. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2233-ESAB.

FCAW welding of weld joint SEG3020U-587 located on Anchor plate to Longitudinal Diaphragm of OBG Segment 14W. ZPMC Welder is identified as 045175. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2233-ESAB.

FCAW welding of weld joint SEG30AP-002 located on Anchor Plate to Anchor Plate of OBG Segment 14W. ZPMC Welder is identified as 201215. 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-T-223(2)1T-ESAB-1.

This QA inspector observed ABF personnel performed Magnetic Particle Testing on OBG Segment 14W located on Anchor plate to Anchor plate splice joint weld after the root and hot pas weld. The weld number is identified as SEG3020AP-002. See the attached pictures.

Sub Merged Arc (SAW) welding of weld joint SEG30AP-002 located on Anchor Plate to Anchor plate splice weld of OBG Segment 14W. ZPMC Welder is identified as 045270. 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-T-2221-B-L2c-S-2.

SMAW repair welding of weld joint DP3148-001-250 located on Longitudinal Diaphragm to Deck Panel Diaphragm at panel point 124 of OBG Segment 13CW. 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-345-SMAW-3G-(3F)-FCM-Repair, which is used as per Critical Welding Repair (CWR) B-CWR-2781.

SMAW repair welding of weld joint DP3148-001-252 located on Longitudinal Diaphragm to Deck Panel Diaphragm at panel point 124.5 of OBG Segment 13CW. ZPMC Welder is identified as 045213. ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-3G-(3F)-FCM-Repair, which is used as per Critical Welding Repair (CWR) B-CWR-2781.

SMAW repair welding of weld joint SEG3014D-335 and 340 located on Side Plate I-Stiffener to Floor Beam at

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panel point 122 of OBG Segment 13BW. ZPMC Welder is identified as 045213. ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-3G-(3F)-FCM-Repair, which is used as per Welding Repair Report (WRR) B-WRR-20261.

SMAW welding of weld joint SEG3015C-014 and 013 located on Floor Beam, Deck Panel Diaphragm to Corner Assembly at panel point 124.5 of OBG Segment 13CW. ZPMC Welder is identified as 037996. 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-2213-Tc-U4b-FCM-1.

SMAW welding of weld joint SEG3015E-014 and 013 located on Floor Beam, Deck Panel Diaphragm to Corner Assembly at panel point 124 of OBG Segment 13CW. ZPMC Welder is identified as 045196. 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-2213-Tc-U4b-FCM-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 , who represents the Office of Structural Materials for your project.

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**Inspected By:** Kumar,Vibin

Quality Assurance Inspector

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**Reviewed By:** Patel,Hiranch

QA Reviewer