

**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-019502**Date Inspected:** 17-Jan-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

<b>CWI Name:</b>	Mr. Qui Wen	<b>CWI Present:</b>	Yes	No
<b>Inspected CWI report:</b>	Yes No N/A	<b>Rod Oven in Use:</b>	Yes No N/A	
<b>Electrode to specification:</b>	Yes No N/A	<b>Weld Procedures Followed:</b>	Yes No N/A	
<b>Qualified Welders:</b>	Yes No N/A	<b>Verified Joint Fit-up:</b>	Yes No N/A	
<b>Approved Drawings:</b>	Yes No N/A	<b>Approved WPS:</b>	Yes No N/A	
		<b>Delayed / Cancelled:</b>	Yes No N/A	
<b>Bridge No:</b>	34-0006	<b>Component:</b>	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: 008201

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 13CW. The weld designations reviewed are as follows:

1. SEG3015N-123~158
2. LD3036-001-090~093, 123~125, 156~159, 189~192, 222~225
3. LD3036-001-249~252, 279~282, 309~312, 339~342

Magnetic Particle Testing (MT) – NWIT Document No's: 008203

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 13CW. The weld designations reviewed are as follows:

1. FB3231-001-066~069, 072~075, 078~081, 084~087, 090~093
2. FB3231-001-096~099, 102~105, 108~111, 051~054

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3. SEG3015D-006, 320~ 323, 021, 022.

Bay 14

This QA Inspector observed the following work in progress:

Flux Core Arc Welding (FCAW) repair welding of weld joint SEG3020BB-046 located on Vertical Shear to Bottom Plate of OBG Segment 14W. ZPMC Welder is identified as 067949. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-FCAW-2G (2F) – FCM – ESAB- Repair-1, which is used as per Critical Welding Repair (CWR) B-CWR-2752.

FCAW repair welding of weld joint SEG3020BB-055 located on Vertical Shear to Bottom Plate of OBG Segment 14W. ZPMC Welder is identified as 067949. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-FCAW-2G (2F) – FCM – ESAB- Repair-1, which is used as per Critical Welding Repair (CWR) B-CWR-2752. See the attached picture.

Shielded Metal Arc Welding (SMAW) repair welding of weld joint SEG3013BB-001 and 019 located on Vertical Shear to Bottom Plate of OBG Segment 14W. 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-345-SMAW-2G (2F) – FCM – Repair-1, which is used as per Welding Repair Report (WRR) B-WRR-20146.

SMAW repair welding of weld joint SEG3020X-008 located on Floor Beam to Longitudinal Diaphragm of OBG Segment 14W. ZPMC Welder is identified as 051348. 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-3G (3F) – FCM – Repair-1, which is used as per Welding Repair Report (WRR) B-WRR-20152.

SMAW repair welding of weld joint SEG3020L-086 located on Bottom Plate to Floor Beam of OBG Segment 14W. ZPMC Welder is identified as 066398. 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-1, which is used as per Critical Welding Repair (CWR) B-CWR-2687.

SMAW repair welding of weld joint SEG3020K-025 located on Bottom Plate to Floor Beam of OBG Segment 14W. ZPMC Welder is identified as 067520. 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-1, which is used as per Critical Welding Repair (CWR) B-CWR-2691.

SMAW welding of weld joint SEG3020D-227 located on Longitudinal Diaphragm to Floor Beam of OBG Segment 14W. ZPMC Welder is identified as 037840. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. 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 SEG3020K-036 and 038 located on Longitudinal Diaphragm to Floor Beam of OBG Segment 14W. ZPMC Welder is identified as 037748. ZPMC Quality Control (QC) is identified as Mr. Zhu

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Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2214-Tc-U4b-FCM-1.

Flux Core Arc Welding (FCAW) welding of weld joint SEG3014-003 located on Deck Panel to Deck Panel of the OBG Segment 13BW. ZPMC Welder is identified as 066734. 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-223(2)1T-ESAB-1.

Sub Merged Arc Welding (SAW) welding of weld joint SEG3015-001 located on Deck Panel 3148A to Deck Panel 3149A of OBG Segment 13CW. ZPMC Welder is identified as 250050. 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-2221-B-L2c-S-2.

SAW welding of weld joint SEG3015-004 located on Deck Panel 3146A to Deck Panel 3147A of OBG Segment 13CW. ZPMC Welder is identified as 250050. 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-2221-B-L2c-S-2.

SAW welding of weld joint SA3232-001-002 located on Deck Panel to Deck Panel of OBG Segment 13CW. ZPMC Welder is identified as 250050. 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-2221-B-L2c-S-2.

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
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<b>Reviewed By:</b>	Patel,Hiranch	QA Reviewer
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