

**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-024637**Date Inspected:** 10-Feb-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 1500**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC) Changxing Island **Location:** Shanghai, China**CWI Name:** 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**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Vikram Singh was present during the times noted above for observations relative to the work being performed at ZPMC.

NDT

OBG Bay 14

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No 08325.

Ultrasonic Testing (UT)

This QA inspector performed Ultrasonic Testing (UT) of approximately 10% of an area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA Inspector generated an UT report for this date. The member is identified as OBG. The weld designations reviewed is as follows:

SEG3020AX-004

WELDING

OBG Bay 14

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This QA Inspector randomly observed the following work in progress:

### Flux Cored Arc Welding (FCAW)

This QA Inspector observed the welding operation per the FCAW process on a weld joint identified as Seg3007T-110 located on Longitudinal Diaphragm I-Rib of the OBG Segment 13AE. The welder is identified as 050242. ZPMC Quality Control (QC) is identified as Mr. Zhong Yong Gang. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

This QA Inspector observed the welding operation per the FCAW process on a weld joint identified as Seg3007AX-002 located on Floor Beam to RS Stiffener of the OBG Segment 13AE. The welder is identified as 066163. ZPMC Quality Control (QC) is identified as Mr. Zhong Yong Gang. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

This QA Inspector observed the welding operation per the FCAW process on a weld joint identified as Seg3007AX-009 located on Floor Beam to RS Stiffener of the OBG Segment 13AE. The welder is identified as 066163. ZPMC Quality Control (QC) is identified as Mr. Zhong Yong Gang. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

### Submerged Arc Welding (SAW)

This QA Inspector observed the welding operation per the SAW process on a weld joint identified as Seg3019-004 located on Anchor Plate to Anchor Plate of the OBG Segment 14E. The welder is identified as 218993. ZPMC Quality Control (QC) is identified as Mr. Xieming Feng. The welding variables recorded by QC appeared to comply with WPS-B-T-2221-B-U3C-S-2.

### Shielded Metal Arc Welding (SMAW)

This QA Inspector observed the welding operation per the SMAW process on a weld joint identified as Seg3007AD-025 located on Floor Beam to Side Plate at PP119-1500 of the OBG Segment 13AE. The welder is identified as 044772. ZPMC Quality Control (QC) is identified as Mr. Zhang Qiang. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-4G (4F)-FCM-Repair and B-WR19451.

This QA Inspector observed the welding operation per the SMAW process on a weld joint identified as Seg3007AD-027 located on Floor Beam to Side Plate at PP119-1500 of the OBG Segment 13AE. The welder is identified as 037723. ZPMC Quality Control (QC) is identified as Mr. Zhang Qiang. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-4G (4F)-FCM-Repair and B-WR19453.

This QA Inspector observed the welding operation per the SMAW process on a weld joint identified as Seg3007P-220 located on bottom Plate I-Rib to Floor Plate of the OBG Segment 13AE. The welder is identified as 037743. ZPMC Quality Control (QC) is identified as Mr. Zhang Qiang. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-3G (3F)-FCM-Repair and B-WR20134.

This QA Inspector observed the welding operation per the SMAW process on a weld joint identified as

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# WELDING INSPECTION REPORT

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Seg3007AB-087 located on K-Plate to side plate of the OBG Segment 13AE. The welder is identified as 068924. ZPMC Quality Control (QC) is identified as Mr. Zhong Yong Gang. The welding variables recorded by QC appeared to comply with WPS-B-P-2212-B-U2-FCM-1.

This QA Inspector observed the welding operation per the SMAW process on a weld joint identified as Seg3007V-458/459 located on Floor Beam I-Rib to Longitudinal Diaphragm of the OBG Segment 13AE. The welder is identified as 044772. ZPMC Quality Control (QC) is identified as Mr. Xieming Feng. The welding variables recorded by QC appeared to comply with WPS-B-P-2114-FCM-1.

During random in process observations of OBG Segment 14E, this QA inspector observed ZPMC personnel performing air-carbon-arc cutting method to make proper radius of cope hole on SA of OBG Segment 14E. This QA performed Visual Testing (VT) of the cope radius and found they appeared to be in general compliance with the applicable contract documents. For more details please see photo below:

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



### Summary of Conversations:

No relevant 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, 15000422372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Singh, Vikram	Quality Assurance Inspector
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<b>Reviewed By:</b>	Patterson, Rodney	QA Reviewer
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