

**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 #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018634**Date Inspected:** 13-Dec-2010**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:** Lv Li Qing**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, Nagalingam Pandaram Pillai was present during the times noted above for observations relative to the work being performed.

Ultrasonic Testing:-

BAY#14

This QA Inspector performed Ultrasonic testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality control personnel. This QA inspector generated a (UT) report for this date. The members are identified as OBG Segment 13 AE. The weld designation reviewed is as follows:

SEG3007G-018,020

BAY#16

This QA Inspector performed Ultrasonic testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality control personnel. This QA inspector generated a (UT) report for this date. The members are identified as Steel Barriers. The weld designation reviewed is as follows:

W5-SB1-095-50

W5-SB1-076-50

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W5-SB1-069-19  
W5-SB1-092-81  
W5-SB1-074-19  
W5-SB1-085-19  
W5-SB1-088-50  
W5-SB1-075-19  
W5-SB1-102-81  
W5-SB2-014-50  
W5-SB20-003-19

In process Inspection:-

BAY#14

This QA Inspector observed the following work in progress:

FCAW in the 2G position for the OBG Segment 13CE Bottom Panel to Longitudinal Diaphragm. The weld joint was designated as: SEG3011N-275. The welder is identified as #044824. ZPMC QC is identified as Mr. Zhang Yong Gang. The welding variables recorded by QC appear to comply with WPS-B-T-2232-ESAB.

This QA Inspector observed the following work in progress:

FCAW in the 3G position for the OBG Segment 13AE Floor Beam to Longitudinal Diaphragm. The weld joint was designated as: SEG3007P-041. The welder is identified as #044774. ZPMC QC is identified as Mr. Wang Xu. The welding variables recorded by QC appear to comply with WPS-B-T-2233-ESAB.

This QA inspector observed the following work in progress:

FCAW welding of weld joint no: DP3105-001-120 located on OBG Segment 13 Deck panel. Welder is identified as #066746. ZPMC QC is identified as Mr. Zhong Guo Hui. Welding was performed according to the Critical weld repair report B-WR18701. The welding variables recorded by QC appeared to comply with the WPS-345-FCAW-2G(2F)-ESAB-Repair-FCM.

This QA inspector observed the following work in progress:

FCAW welding of weld joint no: DP3106-001-050 located on OBG Segment 13 Deck panel. Welder is identified as #066746. ZPMC QC is identified as Mr. Zhong Guo Hui. Welding was performed according to the weld repair report B-WR18705. The welding variables recorded by QC appeared to comply with the WPS-345-FCAW-2G(2F)-ESAB-Repair.

This QA inspector observed the following work in progress:

SMAW welding of weld joint no: SEG3007Q-105 located on OBG Segment 13AE Floor Beam to Longitudinal Diaphragm. Welder is identified as #216086. ZPMC CWI is identified as Mr. Lv Li Qing. Welding was performed according to the weld repair report B-WR18394. The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-3G(3F)-FCM-Repair. Please see the attached picture.

This QA inspector observed the following work in progress:

SMAW welding of weld joint no: SEG3007G-048 located on OBG Segment Bottom panel to Floor Beam. Welder

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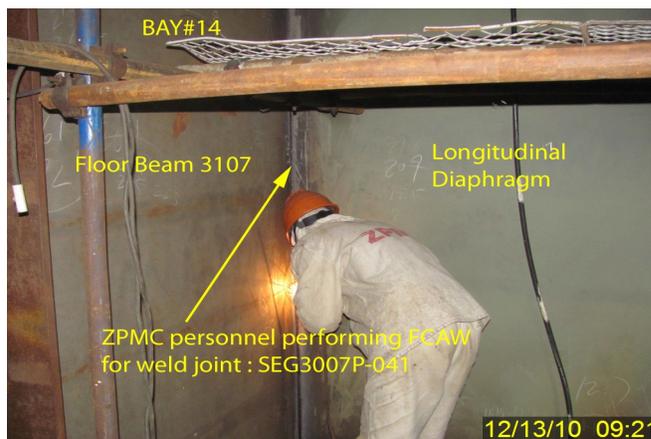
is identified as #066416. ZPMC CWI is identified as Mr. Lv Li Qing. Welding was performed according to the weld repair report B-WR18552 .The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-2G(2F)-FCM-Repair.

Visual Inspection after Blast:-

## EAST SHAFT LIFT 4

This QA Inspector performed a preliminary random visual inspection after the grit blast of the Exterior components of the Skin A,B,C,D and E of this segment. Areas of visual weld defects that will require welding were taped and will be repaired after the coating is applied. ZPMC QC personnel are aware of these areas and were present during the inspection.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



### Summary of Conversations:

No Relevant Conversation.

### 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 150-0042-2372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Pillai,Pandaram

Quality Assurance Inspector

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**Reviewed By:** Patel,Hiranch

QA Reviewer