

**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-020610**Date Inspected:** 03-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:** Mr. Geng Wei**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:** BAY 14 OBG**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Robert A. DeArmond was present during the time noted above and conducted observations relative to the work being performed.

OBG BAY 14

Magnetic Particle Testing (MT)

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. All components were as listed on NWIT notification no. 07602. The member(s) is/are identified as Corner Assembly. The weld designations reviewed are as follows:

CA3014A-012, 013, 010, 011, 008, 009, 004, 005

CA3014B-012, 013, 010, 011, 054, 055, 058, 059, 109, 110, 149, 150, 153, 154

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CA3014C-109, 110, 107, 108, 101, 102, 103, 104, 012, 013,

OBG BAY 14

Magnetic Particle Testing (MT)

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. All components were as listed on NWIT notification no. 07598. The member(s) is/are identified as Vertical Plate (VP) 3007A. The weld designations reviewed are as follows:

VP3007-001- 011, 012, 024, 025, 037, 038, 050, 051, 063, 064, 076, 077

OBG BAY 14

This QA Inspector observed the following work in progress:

FCAW welding of complete joint penetration weld joint(s) located on Diaphragm Plate to Deck Plate identified as DP3152-001 weld number(s) 110. Welder is identified as welder no. 066571. The welding variables recorded by ZPMC QC identified as Shao Jian Yuan appeared to comply with applicable WPS(s) WPS-B-T-2232-ESAB.

FCAW welding of complete joint penetration weld joint(s) located on Diaphragm Plate to Deck Plate identified as DP3133-001 weld number(s) 021. Welder is identified as welder no. 048433. The welding variables recorded by ZPMC QC identified as Shao Jian Yuan appeared to comply with applicable WPS(s) WPS-B-T-2232-ESAB.

FCAW welding of complete joint penetration weld joint(s) located on Diaphragm Plate to Deck Plate identified as DP3135-001 weld number(s) 021. Welder is identified as welder no. 048698. The welding variables recorded by ZPMC QC identified as Shao Jian Yuan appeared to comply with applicable WPS(s) WPS-B-T-2232-ESAB.

During random in process inspection of Orthotropic Box Girder (OBG) member identified as DP3133 this QA observed ZPMC welding personnel (No.048433) utilizing the Flux Cored Arc Welding (FCAW) process in the 2G position. Welding parameters appeared to be outside the designated WPS(s) WPS-B-T-2232-ESAB. The in-process variables recorded are as follows;

Amperage: 280.4

Voltage: 33.7

This QA informed ZPMC Quality Control (QC) identified as Mr. Wanh Xu of this issue. Mr. Xu informed this

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QA that the in-process variables would be corrected in a manner compliant with the contract documents.

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

**Summary of Conversations:**

As mentioned above 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 Jim Devy 150-002-6784, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	DeArmond,Robert	Quality Assurance Inspector
<b>Reviewed By:</b>	Riley,Ken	QA Reviewer

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