

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016347**Date Inspected:** 09-Aug-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. Qiu 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:** Tower and Orthotropic Box Girder (OBG)**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

BAY 10 AND BAY 11

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as OBG Edge plate and Tower Strut. The weld designations reviewed are as follows.

EP3018-001-037,

WD1-STSA4-5-143M-1-33,34,30,19,20,15,16,40,38,48,14,28,17,43,44,5,6

NDT Notification No-06368

BAY 10 AND BAY 11

This QA Inspector performed randomly Visual Inspection and Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6027 (UT) report for this date. The member is identified as OBG Edge plate and Tower Strut. The weld designations reviewed are as follows.

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EP3018-001-037,
WD1-STSA4-5-143M-1-5A/B, 6A/B, 7A/B, 8A/B, 47A/B, 48A/B
NDT Notification No-06368

This QA Inspector observed the following work in progress:

BAY 11: SMAW Process.

This QA Inspector observed ZPMC qualified welding personnel identified as 040611, 040610, 041271, 040724 Perform Shielded Metal Arc Welding (SMAW) on East Tower lift 5 Grillage plate, Joint identified as ESD1-TL5-2B-F-22, 23. ZPMC QC Identified as Ma Qianli Ma. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-Tc-U4c.

This QA Inspector observed ZPMC qualified welding personnel identified as 046709, 046769 Perform Shielded Metal Arc Welding (SMAW) on East Tower lift 5 Grillage plate, Joint identified as ESD1-TL5-2B-F-7B. ZPMC QC Identified as Ma Qianli Ma. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-Tc-U5b.

Ultrasonic Testing: OBG Bike Path Plate.

This QA Inspector observed ZPMC Ultrasonic Testing Inspector, performing UT on OBG Bike path plate. Plate identified as BK004A-024-009, and BK004A-021-009. For more information see below attached picture number 1.

BAY 10, SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 067993, 066361, Perform Shielded Metal Arc Welding (SMAW) on North Tower lift 5 Grillage plate. Joint identified as NSD1-TL5-3B-F-11. ZPMC QC Identified as Yu Zhi Lai. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-Tc-U4c.

This QA Inspector observed ZPMC qualified welding personnel identified as 066155, 037840, 067707, 066443, Perform Shielded Metal Arc Welding (SMAW) on North Tower lift 5 Grillage plate. Joint identified as NSD1-TL5-3B-F-28B, 29B, 30B, 31B. ZPMC QC Identified as Yu Zhi Lai. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-Tc-U5b.

This QA Inspector observed ZPMC qualified welding personnel identified as 500363, 044504, 057258, 040273, Perform Shielded Metal Arc Welding (SMAW) on South Tower lift 5 Grillage plate. Joint identified as SSD1-TL5-1B-F-22, 23, 53, 54. ZPMC QC Identified as Yuan Hai Gang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-Tc-U4c.

This QA Inspector observed ZPMC qualified welding personnel identified as 044515, 057266, Perform Shielded Metal Arc Welding (SMAW) on South Tower lift 5 Grillage plate. Joint identified as SSD1-TL5-1B-F-6A, ZPMC QC Identified as Yuan Hai Gang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-Tc-U5b.

This QA Inspector observed ZPMC qualified welding personnel identified as 048786, Perform Shielded Metal Arc Welding (SMAW) on South Tower lift 5 Grillage plate. Joint identified as SSD1-TL5-1F-F-25A, ZPMC QC

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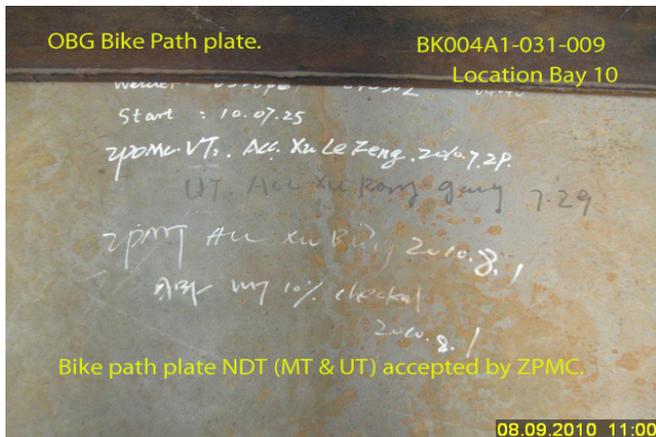
Identified as Yuan Hai Gang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-Tc-U5b.

This QA Inspector observed ZPMC qualified welding personnel identified as 053829, 040268, Perform Shielded Metal Arc Welding (SMAW) on South Tower lift 5 Grillage plate. Joint identified as SSD1-TL5-1B-F-80, ZPMC QC Identified as Yuan Hai Gang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-Tc-U5b.

BAY 10 OBG Bike Path plate.

During random visual inspection in Bay 10, this Quality Assurance Inspector (QA) discovered the following issue: ZPMC personnel performed heat straightening on OBG Bike path plate after NDT (MT & UT) acceptance by ZPMC and Caltrans. The effected Bike path Plate is identified as BK004A1-031-009. The Green Tag is issued, Green Tag #13684-1. The member is non Seismic Performance Critical Member (NON SPCM). The Heat straightening report number is- HSR1 (B)-8907. The Material thickness is 16 mm. This Bike path Plate is located in Sub assembly Bay#10. For further information, please see the attached pictures below.

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



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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 Michael Ng Phone: 15921845703, who represents the Office of Structural Materials for your project.

Inspected By:	Gaikwad,Shailesh	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer
