

**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-013231**Date Inspected:** 03-Mar-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:** Du Zhi Qun**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**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:

This QA Inspector observed the following work in progress:

BAY 10

Repair Welding

This QA Inspector observed ZPMC qualified welding personnel identified as 054069, 052075 Perform Flux Core Arc Welding (FCAW) on Skirt Plate, Buttering up to 3~9mm on Skirt Plate, NSD1-A803A/B I rib and bottom plate 803, ZPMC QC Identified as Jiang Xiang Bo. With Temporary welding repair report, WRR-T-WR3075, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-FCAW-2G(2F) Repair. For more information see below attached photo.

Repair Welding

This QA Inspector observed ZPMC qualified welding personnel identified as 052793, 040582. Perform Shielded Metal Arc Welding (SMAW) on North tower lift 4, B/C corner joint from Inside near 131M to 135M double diaphragm, Joint identified NSTL4-3B/L-5B, ZPMC QC Identified as Wang Hao. With Critical Welding repair report, CWR-T-CWR591 Rev 1. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-2G (2F) Repair.

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### Repair Welding

This QA Inspector observed ZPMC qualified welding personnel identified as 053049. Perform Shielded Metal Arc Welding (SMAW) on North tower lift 4, B/C corner joint from Inside and Y location 17170 to 18810 mm. Joint identified NSTL4-3B/L-5B, ZPMC QC Identified as Sun Tiang Liang. With Critical Welding repair report, CWR-T-CWR591 Rev 1. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-2G (2F) Repair.

### Repair Welding

This QA Inspector observed ZPMC qualified welding personnel identified as 500331, 500363. Perform Shielded Metal Arc Welding (SMAW) on North tower lift 4, C/D corner joint from Inside 6th Time repair, Joint identified NSTL4-3B/L-1B, ZPMC QC Identified as Wang Hao. With Critical Welding repair report, CWR-T-CWR533 Rev 3. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-1G (1F) Repair.

This QA Inspector observed during random Visual inspection, ZPMC Magnetic Particle Testing (MT) Inspector performed MT on Tower Strut. Item identified as ND1-STSA3-1-89M-1. For more information see below attached photo.

This QA Inspector observed ZPMC qualified welding personnel identified as 500373. Perform Shielded Metal Arc Welding (SMAW) on Skirt Extension Block. Joint identified, as SSD1-SA447-2-2, ZPMC QC Identified as Jiang Xiang Bo. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2312-TC-P4.

This QA Inspector observed ZPMC qualified welding personnel identified as 052917. Perform Submerged Arc Welding (SAW) on Tower Grillage beam plate. Joint identified NSD1-TL5-3B-F-6B, 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-3221-B-U3c-S-1.

### BAY 11

### Repair Welding

This QA Inspector observed ZPMC qualified welding personnel identified as 053916. Perform Shielded Metal Arc Welding (SMAW) on West tower lift 4, D/E corner joint, Joint identified WSTL4-2B/L-61A, ZPMC QC Identified as Xu Jiang Long. With Temporary welding repair report, WRR-T-WR3072, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-2G(2F)Repair. For more information see below attached photo.

### Repair Welding

This QA Inspector observed ZPMC qualified welding personnel identified as 046704. Perform Shielded Metal Arc Welding (SMAW) on East Tower lift 5 A/E corner joint. Joint identified, as ESD1-TL5-2B/F-3A, ZPMC QC Identified as Shao Hai Loang. With Temporary welding repair report, WRR-T-WR3077, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-2G (2F)-Repair-1.

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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 Skyler Guest phone: 15000422360, who represents the Office of Structural Materials for your project.

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**Inspected By:** Gaikwad,Shailesh

Quality Assurance Inspector

**Reviewed By:** Clifford,William

QA Reviewer