

**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-016503**Date Inspected:** 24-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. Zhao Chen Sun**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 date Caltrans OSM Quality Assurance(QA) Inspector, Baskar Govindarajan, was present during the times noted above for observations relative to the work being performed.

**Heavy Dock Jetty**

1. This QA inspector, Baskar Govindarajan, observed, ZPMC qualified welding personnel identified as 040365 perform SMAW welding on; Cross Bracing Gusset and Skin A of West shaft, Lift 3, in 99 mtr. elevation and the weld joint is identified as WD1-GUSA3-3-99 mtr.-W-4A. ZPMC CWI Identified as Mr. Zhao Chen Sun. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-P-2212-TC-U5B-FCM.

2. This QA inspector, Baskar Govindarajan, observed, ZPMC qualified welding personnel identified as 040365 perform SMAW Repair welding on; North shaft, Lift 2, inside 77 mtr. Top diaphragm, Skin C Fit lug and the weld joint is identified as NSD1-TL5 H/L-132. ZPMC CWI Identified as Mr. Zhu Feng. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-345- SMAW-3G (3F) -Repair. (Photo attached)

Bay no.10

3. This QA inspector, Baskar Govindarajan, observed, ZPMC qualified welding personnel identified as 052493

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perform SMAW welding on; South shaft, Lift 5, Skin D to Grillage plate and the weld joint is identified as SSD1-TL5-1B/F-18. ZPMC CWI Identified as Mr. Ye Yong Jun. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-3213-TC-U4c. (Photo attached)

4. This QA inspector, Baskar Govindarajan, observed, ZPMC qualified welding personnel identified as 066422 perform SMAW welding on; North shaft, Lift 5, Intersection diaphragm plate to Grillage plate and the weld joint is identified as NSD1-TL5-3 F/F-15. ZPMC CWI Identified as Mr. Ye Yong Jun. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-3313-TC-P5.

5. This QA inspector, Baskar Govindarajan, observed, ZPMC qualified welding personnel identified as 053116 perform FCAW welding on; Façade seal angle and the weld joint is identified as SD1-SFSA4-154-15, 16. ZPMC CWI Identified as Mr. Zhang Huang. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2132.

Bay no. 11

6. This QA inspector, Baskar Govindarajan, observed ZPMC qualified welding personnel identified as 040759 perform FCAW welding on; Lift 14-OBG Edge plate and the weld joint is identified as EP 3030D-001-69. ZPMC CWI Identified as Mr. Yu Dong Ping. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2132.

Ultrasonic Testing:

This QA inspector, Baskar Govindarajan, performed Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted at Tower components by ZPMC Quality Control personnel. This QA Inspector generated a TL-6027 UT report for this date. The member is identified as 109 mtr. Cross bracing gusset to South and North tower skins at Heavy Dock Jetty. (Notification no. 006469). Due to Component Geometry, it appears that ZPMC personnel's could not perform 100% full volumetric UT testing of this complete weld joint. (Cross beam Gusset to Skin A & E of Lift 3 shafts). The weld designation reviewed is as follows:

WD1-GUSA3-3-109mtr.-S – Jt. nos – 4 A/B

WD1-GUSA3-3-109mtr.-N – Jt. nos – 3, 4 A/B

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:

No relevant Conversations.

## 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 Micheal Ng (15921845703), who represents the Office of Structural Materials for your project.

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**Inspected By:** Baskar, Govindarajan

Quality Assurance Inspector

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**Reviewed By:** Clifford, William

QA Reviewer