

**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-016939**Date Inspected:** 18-Sep-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 046769 perform SMAW welding on; Cross Bracing Gusset and Back fill plate on Skin A of East shaft, Lift 3, in 109 mtr. elevation and the weld joint is identified as ESD1-FASA3-2 B/E-28, 22. 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-T-4212-TC-U4C-4. (Photo attached)

2. This QA inspector, Baskar Govindarajan, observed, ZPMC qualified welding personnel identified as 040610 perform SMAW welding on; Cross Bracing Gusset and Back fill plate on Skin A of West shaft, Lift 3, in 109 mtr. elevation and the weld joint is identified as WSD1-FASA3-2 B/E-34. 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-T-4313-TC-P4.

3. This QA inspector, Baskar Govindarajan, observed, ZPMC qualified welding personnel identified as 044511 perform SMAW Repair welding on; Cross Bracing Gusset and Back fill plate on Skin A of South shaft, Lift 3, in 99 mtr. elevation and the weld joint is identified as SSD1-FASA3-1 B/E-28. ZPMC CWI Identified as Mr. Zhao Chen Sun. The welding parameters as measured using QC's calibrated instruments appeared to be in general

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compliance with WPS-345+485-SMAW-2G (2F)-FCM-Repair. The Welding Repair Report (WRR) found to be WR-3632.

4. This QA inspector, Baskar This QA inspector, Baskar Govindarajan, observed, ZPMC qualified welding personnel identified as 040690 perform SMAW Repair welding on; Cross Bracing Gusset and Back fill plate on Skin A of East shaft, Lift 3, in 99 mtr. elevation and the weld joint is identified as ESD1-FASA3-2 B/E-26. 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-345+485-SMAW-2G (2F)-FCM-Repair. The Welding Repair Report (WRR) found to be WR-3613.

5. This QA inspector, Baskar This QA inspector, Baskar Govindarajan, observed, ZPMC qualified welding personnel identified as 040365 perform SMAW Repair welding on; Cross Bracing Gusset and Back fill plate on Skin A of North shaft, Lift 3, in 99 mtr. elevation and the weld joint is identified as NSD1-FASA3-1 B/E-28. 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-345+485-SMAW-2G (2F)-FCM-Repair.

Bay no.10

6. This QA inspector, Baskar Govindarajan, observed, ZPMC qualified welding personnel identified as 057266/057180 perform FCAW Buttering welding on; OBG, Bike path plates and the weld joint is identified as BK5A-BKPL 3B. ZPMC CWI Identified as Mr. Xu Le Feng. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-345-FCAW-2G (2F)-Repair. (Photo attached)

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 South shaft, Lift 5, Grillage plate welds at Bay no. 10. (Notification no. 006702). Due to Component Geometry, it appears that ZPMC personnel's could not perform 100% full volumetric UT testing of this complete weld joint. Also, Due to Joint geometry, This QA inspector could not able to do 100% full volumetric UT testing. The weld designation reviewed is as follows:

SSD1- TL5-1 B/F – Jt. nos – 53, 22 A/B – South shaft, Lift 5

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