

**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-016933**Date Inspected:** 09-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

<b>CWI Name:</b>	Mr. Zhao Chen Sun /Mr. Qiu Wei			<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>	
<b>Inspected CWI report:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
				<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Bridge No:</b>	34-0006			<b>Component:</b>	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 040582 perform SMAW 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-32. 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-4213-TC-P4.
2. 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 99 mtr. elevation and the weld joint is identified as ESD1-FASA3-2 B/E-24. 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-3212-B-U2a-2.
3. 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 99 mtr. elevation and the weld joint is identified as WSD1-FASA3-2 B/E-24. ZPMC CWI Identified as Mr. Zhao Chen Sun. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance

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with WPS-B-T-3212-B-U2a-2. (Photo attached)

4. This QA inspector, Baskar Govindarajan, observed, ZPMC qualified welding personnel identified as 044511 perform SMAW welding on; Cross Bracing Gusset and Back fill plate on Skin A of North shaft, Lift 3, in 89 mtr. elevation and the weld joint is identified as NSD1-FASA3-1 C/E-21. 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.

5. This QA inspector, Baskar Govindarajan, observed, ZPMC qualified welding personnel identified as 052930 perform SMAW welding on; Cross Bracing Gusset and Back fill plate on Skin A of South shaft, Lift 3, in 109 mtr. elevation and the weld joint is identified as SSD1-FASA3-1 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-4213-TC-P4.

Bay no. 10

6. This QA inspector, Baskar Govindarajan, observed, ZPMC qualified welding personnel identified as 207745 perform SAW welding on; Lift 14, OBG Components, Bottom plate and the weld joint is identified as BP 3094-001-292. ZPMC CWI Identified as Mr. Qiu Wen. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2221-B-L2C-S-2. (Photo attached)

7. This QA inspector, Baskar Govindarajan, observed, ZPMC qualified welding personnel identified as 061938 perform SMAW Tack welding on; Lift 14, OBG Components, Bottom plate and the weld joint is identified as BP 3090A-001-061, 062. ZPMC CWI Identified as Mr. Qiu Wen. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-P-2112.

### 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. 006625). 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 of Lift 3 shafts). The weld designation reviewed is as follows:

WD1-GUSA3-3-99mtr.-W – Jt. nos – 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