

**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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016940**Date Inspected:** 19-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 044511 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 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 compliance with WPS-345+485-SMAW-2G (2F)-FCM-Repair. The Welding Repair Report (WRR) found to be T-WR-3632.

2. 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. The Welding Repair Report (WRR) found to be T-WR-3633.

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 109 mtr.

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elevation and the weld joint is identified as WSD1-FASA3-2 B/E-33. 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.

4. This QA inspector, Baskar Govindarajan, observed, during Ultrasonic Testing (UT) in 89mtr. elevation of North shaft, Lift 3 at Heavy Dock, Tower trial assembly area, Class A indication of approximately 35 mm in length . This was informed to ZPMC QC and ABF. Incident report wrote on this issue. (Photos 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 3, and North shaft, Lift 3 of 89 mtr. and 109 mtr. elevation at Heavy Dock, Tower trial assembly area (Notification nos. 006711 and 06717). The weld designation reviewed is as follows:

SSD1- FASA3-1C/E – Jt. nos – 13,23,22,12,24 –South shaft, Lift 3-89mtr.

NSD1-FASA3-1 C/E-Jt. nos.- 13,19,18,25- North shaft, Lift3 -89 mtr.

NSD1-FASA3-1 C/E-Jt. nos.- 12- North shaft, Lift3 -89 mtr.

SSD1- FASA3-1B/E – Jt. nos – 22,30,20 –South shaft, Lift 3-109mtr.

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



## Summary of Conversations:

No relevant Conversations.

## Comments

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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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<b>Inspected By:</b>	Baskar, Govindarajan	Quality Assurance Inspector
<b>Reviewed By:</b>	Clifford, William	QA Reviewer

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