

**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-016686**Date Inspected:** 02-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:** 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 Components**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials Quality Assurance Inspector, Sandeep Kumar (QA) was present during the times noted above for observations relative to the work being performed.

**TOWER JETTY**

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 00474

**Bolting Tension Verification:**

This QA Inspector witnessed final Bolt tension verification approximately 10% for south & tower lift-2 tower bracing, grating supports and mislocated bolt holes. Final tension verification found to be in general compliance. Details of bolt size, RC Set # and final torque value are as follows:

Bolt sizes used were M22\*110, RC Set #DHGM220010 and final torque value was 437 N-m.

Manual Torque wrench used with serial number noted as XO2-778.

This QA Inspector observed the following work in progress

**Shielded Metal Arc Welding (SMAW):**

Weld joint # 27 located on North tower Lift-3, 99 M cross bracing gusset plate to small doubler plate NSD1 – FASA3 – 1B/E. Welder is identified as 040582. ZPMC Quality Control (QC) Inspector is identified Zhao Chen Sun. The welding variables recorded by QC appeared to comply with the WPS – B – P – 4214– Tc – U4c.

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## WELDING INSPECTION REPORT

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Weld joint # 28 located on South tower Lift-3, 99 M cross bracing gusset plate to small doubler plate SSD1 – FASA3 – 1B/E. Welder is identified as 053049. ZPMC Quality Control (QC) Inspector is identified Zhao Chen Sun. The welding variables recorded by QC appeared to comply with the WPS – B – P – 4212– Tc – U4c – 4.

Weld joint # 33 located on North tower Lift-3, 109 M cross bracing gusset plate to small doubler plate NSD1 – FASA3 – 1B/E. Welder is identified as 052910. ZPMC Quality Control (QC) Inspector is identified Zhao Chen Sun. The welding variables recorded by QC appeared to comply with the WPS – B – P – 4213– Tc – U4c – 1.

Weld joint # 30 located on South tower Lift-3, 109 M cross bracing gusset plate to small doubler plate SSD1 – FASA3 – 1B/E. Welder is identified as 040365. ZPMC Quality Control (QC) Inspector is identified Zhao Chen Sun. The welding variables recorded by QC appeared to comply with the WPS – B – P – 4212– Tc – U4c – 4.

Weld joint # 34 located on North tower Lift-3, 109 M cross bracing gusset plate to small doubler plate ND1 – FASA3 – 1B/E. Welder is identified as 052910. ZPMC Quality Control (QC) Inspector is identified Zhao Chen Sun. The welding variables recorded by QC appeared to comply with the WPS – B – P – 4313 – Tc –P4.

Weld joint # 29 located on South tower Lift-3, 109 M cross bracing gusset plate to small doubler plate SSD1 – FASA3 – 1B/E. Welder is identified as 040365. ZPMC Quality Control (QC) Inspector is identified Zhao Chen Sun. The welding variables recorded by QC appeared to comply with the WPS – B – P – 4214– Tc – U4c. (See attached photo)

Weld joint # 28 located on North tower Lift-3, 99 M cross bracing gusset plate to small doubler plate NSD1 – FASA3 – 1B/E. Welder is identified as 040582. ZPMC Quality Control (QC) Inspector is identified Zhao Chen Sun. The welding variables recorded by QC appeared to comply with the WPS – B – P – 4212– Tc – U4c – 4.

Weld joint # 27 located on South tower Lift-3, 99 M cross bracing gusset plate to small doubler plate SSD1 – FASA3 – 1B/E. Welder is identified as 053049. ZPMC Quality Control (QC) Inspector is identified Zhao Chen Sun. The welding variables recorded by QC appeared to comply with the WPS – B – P – 4214– Tc – U4c.

BAY#11

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Weld joint # 05 located on West tower Lift-5 Grillage Assembly WSD1 – TL5 – 4B/F. Welder is identified as 067993. ZPMC Quality Control (QC) Inspector is identified as Shang Hai Long. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3213 – Tc – U4c.

(See attached photo)

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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# WELDING INSPECTION REPORT

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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 Michael Ng - 15921845703, who represents the Office of Structural Materials for your project.

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**Inspected By:** Kumar,Sandeep

Quality Assurance Inspector

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**Reviewed By:** Clifford,William

QA Reviewer