

**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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013532**Date Inspected:** 13-Apr-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:** Gong Liang Zhu**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 Trial Assembly

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 005513

## Visual Inspection Testing (VT)

This QA inspector performed VT of the area previously tested and accepted by ZPMC Quality Control personnel. The member is identified as Tower Component. The identified component and weld designations reviewed are as follows:

SOUTH TOWER LIFT-1, 18~43M SKIN 'A' FAÇADE CONNECTION PLATE

SSD1 – SA15E/F – 1~4

SSD1 – SA159C/J – 1~20

SOUTH TOWER LIFT-1, 18~43 SKIN 'E' FAÇADE CONNECTION PLATE

SSD1 – SA16E/G – 6~9

SSD1 – SA173 – 1~20

NORTH TOWER LIFT-1, 18~43 SKIN 'A' FAÇADE CONNECTION PLATE

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NSD1 – SA33E/F – 1~4

NSD1 – SA159C/J – 1~20

NORTH TOWER LIFT-1, 18~43 SKIN 'E' FAÇADE CONNECTION PLATE

NSD1 – SA76E/H – 9~12

NSD1 – SA10 – 1~14; 17~22

Magnetic Particle Testig (MT)

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The member is identified as Tower Component. The weld designation reviewed as follows:

SOUTH TOWER LIFT-1, SKIN 'A' FAÇADE CONNECTION PLATE

SSD1 – SA159C/J – 3; 4

SOUTH TOWER LIFT-1, SKIN 'E' FAÇADE CONNECTION PLATE

SSD1 – SA173 – 3; 4; 5

NORTH TOWER LIFT-1, SKIN 'A' FAÇADE CONNECTION PLATE

NSD1 – SA159C/J – 3; 4

NORTH TOWER LIFT-1, SKIN 'E' FAÇADE CONNECTION PLATE

NSD1 – SA10 – 1; 2; 7

This QA Inspector observed the following work in progress:

Flux Core Arc Welding (FCAW):

Weld joint # 014 located on West Tower Lift-1 Bearing stiffener WSD1 – SA279. Welder is identified as 066165. ZPMC Quality Control (QC) Inspector is identified as Wang Chuangxin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2333 – Tc – P4 – F.

Weld joint # 074 located on base plate to shear plate WD1 – A28A/B between South and West shafts. Welder is identified as 054069. ZPMC Quality Control (QC) Inspector is identified as Fu Wei Min. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2332 – Tc – P5 – F.

(See attached photo)

Weld joint # 017 located on West Tower Lift-1 Bearing stiffener WSD1 – SA225F/H. Welder is identified as 068865. ZPMC Quality Control (QC) Inspector is identified as Wang Chuangxin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2333 – Tc – P4 – F.

(See attached photo)

Unless otherwise noted, all work observed on this date appeared to generally comply with 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 Skyler Guest - 15000422360, 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