

**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-010007**Date Inspected:** 29-Oct-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Wan Wen Zhong, Li Yang**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/OBG**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Shrikant Utekar was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

BAY #10

This QA Inspector randomly observed the following work in progress.

**SOUTH TOWER LIFT # 4**

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 056200 performing Shielded Metal Arc Welding process for the weld joint SSTL4-1L/L -2B located on PCMK South tower lift #4. ZPMC QC Mr. Li Ming monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-3212-TC-U4B-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 052493 performing Shielded Metal Arc Welding process for the weld joint SSTL4-1L/L -1B located on PCMK South tower lift #4. ZPMC QC Mr. Li Ming monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-3211-TC-U4B-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 050041 performing Flux Core Arc

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Welding process for the weld joint SSTL4-1B/L -2B located on PCMK South tower lift #4. ZPMC QC Mr. Li Ming monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-2231-TC-U4B-F.

## NORTH TOWER LIFT #4

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 040491 performing Shielded Metal Arc Welding process for the weld joint NSTL4-3K/L -84 located on PCMK North tower lift #4. ZPMC QC Mr. Wan Wen Zhong monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-4314-TC-P4-2.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 040581 performing Shielded Metal Arc Welding process for the weld joint NSTL4-3K/L -15 located on PCMK North tower lift #4. ZPMC QC Mr. Wan Wen Zhong monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-4314-TC-P4-2.

## TRIAL ASSEMBLY YARD

This QA Inspector randomly observed the following work in progress.

## OBG SEGMENT 1AW- 1BW

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 048659 performing Shielded Metal Arc Welding process for the weld joint OBW1-006 on the excavated areas located on PCMK deck panel splice weld joint between of OBG segment 1AW and 1BW. The Y location measured approximately 16570mm and 15690mm from counter weight side. ZPMC QC Mr. Zhang Ming monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-1G (1F) Repair-1. The critical weld repair report identified as B-CWR875.

## OBSERVATIONS

### OBG SEGMENT 1AAW-1AW

This Quality assurance (QA) Inspector observed ZPMC personnel gouged (excavated) deck panel splice weld between OBG segment 1AAW and 1AW at 14 different locations.

This Quality assurance (QA) Inspector observed ZPMC personnel gouged (excavated) bottom panel splice weld between OBG segment 1AAW and 1AW at 7 different locations.

### OBG SEGMENT 1AAE-1AE

This Quality assurance (QA) Inspector observed ZPMC personnel gouged (excavated) deck panel splice weld between OBG segment 1AAE and 1AE at various 18 different locations.

## BAY# 09

## MAGNETIC PARTICLE INSPECTION

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This Caltrans QA Inspector performed approximately 15% Magnetic Particle Testing verification of OBG Deck panel U rib tack welds after ZPMC initial MT inspection. ZPMC personnel have made repairs of areas found unacceptable. ZPMC has not performed the final MT of the repair areas. This Quality Assurance (QA) Inspector did not generated Magnetic particle Inspection (MT) report for above inspection. No relevant indications were found during this in-process inspection. The Following panels were tested

DP3047-001-001 through 08

DP3002-001-001 through 06

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

**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 Serge Sinevod 13482570045, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Utekar,Shrikant	Quality Assurance Inspector
<b>Reviewed By:</b>	Dawson,Paul	QA Reviewer

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