

**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-017573**Date Inspected:** 08-Oct-2010**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:** See below**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 and OBG Components**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA Inspector) George Goulet was present during the times noted above for observations relative to the work being performed.

**Bay 11**

This QA Inspector randomly observed the following work in progress in Bay 11:

FCAW tack welding of weld joint BK004A-021-A8-035 located on PCMK BK004A-021. Welder was identified as 042218. QC was identified as ZPMC CWI Xu Le Feng (QC1). Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Shao Hai Lang (QCA1), who was not a CWI.

Welding variables recorded by QCA1 appeared to comply with WPS-B-T-2132.

**Bay 10**

This QA Inspector randomly observed the following work in progress in Bay 10:

SMAW repair welding of weld joint ESD1-TL5-2E/F-8A located on PCMK east tower, lift 5, external connection plate at skins A/E corner. Alternating welders were identified as 046769, 044541. QC was identified as ZPMC CWI Yu Dong Ping (QC1). Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Xu Jie (QCA1), who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-485-SMAW-3G(3F)-repair as listed on ZPMC Weld Repair Report T-WR3702 attached to ZPMC Ultrasonic Testing Report T787-UT-3263 as presented to this QA Inspector and verbalized by QC1.

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## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

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FCAW repair welding of weld joint BK004A1-028-044 located on PCMK BK004A1-028. Welder was identified as 040434. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Deng Zhi Bing (QCA2), who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-345-FCAW-1G(1F)-repair-1 as listed on ZPMC Weld Repair Report B-WR with no number and not attached to ZPMC Ultrasonic Testing Report B787-UT-15601 as presented to this QA Inspector and verbalized by QC2.

### OBG Trial Assembly Area

This QA Inspector randomly observed the following work in progress in the OBG Trial Assembly Area:

ZPMC workers were match drilling, using magnetically attached drill presses, into OBG 10CE FL3 and CB14 bottom plates through previously drilled holes in the overlapping splice plate.

SMAW tack welding of traveler rail bracket bottom flange to vertical tube steel, performing fit-up while leveling the flange, at various locations located on OBG 10BE and 10 CE. Welder was identified as 057184. QC was identified as ZPMC CWI Shi Lei (QC2). Welding variables recorded by QC2 appeared to comply with WPS-B-T-2112 as identified by QC2.

FCAW repair welding of weld joint SEG064C-006 located on PCMK 10CE, panel point 94, east side of floor beam web to longitudinal diaphragm top flange. Welder was identified as 047353. QC was identified as QC2. Welding variables recorded by QC2 appeared to comply with WPS-345-FCAW-1G(1F)-FCM-repair-1 as listed on ZPMC Weld Repair Report B-WR15764 and attached to ZPMC Ultrasonic Testing Report B787-UT-16306 as presented to this QA Inspector and verbalized by QC2.

### Heavy Dock

This QA Inspector randomly observed the following on the Heavy Dock:

All 4 towers' lift 3 were connected and positioned vertically on a base pedestal at end of the Heavy Dock. East, south, west, and north towers, lift 4 were positioned on top of east, south, west, and north towers, lift 3, respectively, on the Heavy Dock. No sounds of drilling were heard from the deck of the Heavy Dock. The ZPMC 1300 ton and 4000 ton floating cranes were moored to the Heavy Dock and sitting idle.

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

### Summary of Conversations:

As noted above.

### 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, 159-2184-5703, who represents the Office of Structural Materials for your project.

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# WELDING INSPECTION REPORT

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