

**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-019363**Date Inspected:** 10-Jan-2011**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 10**

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

FCAW welding of weld joints BK009A7-001-013, 016, 021, 024 located on PCMK OBG BK009-001, longitudinal slanted T-ribs. Welder was identified as 053869. QC was identified as Zhao Chen Sun (QC1). Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was Li Peng Fei (QCA1), who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-T-2232-ESAB and WPS-B-T-2233-ESAB as verbally identified by QCA1.

FCAW welding of weld joints BK009A7-001-247, 254 located on PCMK OBG BK009-001, longitudinal slanted T-ribs. Welder was identified as 052075. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-T-2232-ESAB and WPS-B-T-2233-ESAB as verbally identified by QCA1.

**Bay 11**

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

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SMAW welding of weld joint GTSA5-B/G-11A located on PCMK tower, lift 5, top plate. Welders were identified as 044541, 040690. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was Shi Yu (QCA2), who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-B-P-2212-TC-U5b as verbally identified by QCA2. See photo below showing the tower, lift 5, top plate welding operations.

SMAW welding of weld joint GTSA5-B/G-12A located on PCMK lift 5, top plate. Welders were identified as 040581, 040365. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-B-P-2212-TC-U5b as verbally identified by QCA2.

SMAW welding of weld joint GTSA5-B/G-13A located on PCMK lift 5, top plate. Welders were identified as 052910, 040582. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-B-P-2212-TC-U5b as verbally identified by QCA2.

SMAW welding of weld joint GTSA5-B/G-14A located on PCMK lift 5, top plate. Welders were identified as 040723, 046769. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-B-P-2212-TC-U5b as verbally identified by QCA2.

ZPMC workers were performing installation of bolt sets connecting the transverse diaphragms to the grillage connection plates between the south tower and east tower, lift 5, skins E and what appeared to be initial tightening to a snug tight condition using an air impact gun.

ZPMC workers were performing what appeared to be final tightening of bolt sets connecting the transverse diaphragms to the grillage connection plates between the north tower and east tower, lift 5, skins A and north tower and west tower, lift 5, skins E using an air impact gun.

### Heavy Dock

This QA Inspector randomly observed no apparent work in progress on the Heavy Dock. Several bundles of steel traffic barriers and 6 bike path sections were positioned on the Heavy Dock. All 4 tower, lift 4's; sections CB15 and CB16; and 11 bike path sections were on the ship moored at the end of the heavy dock.

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

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## 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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<b>Inspected By:</b>	Goulet, George	Quality Assurance Inspector
<b>Reviewed By:</b>	Riley, Ken	QA Reviewer

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