

**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-023547**Date Inspected:** 04-May-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:** 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.

**OBG Trial Assembly Area**

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

SAW welding of weld joint OBE13-002 located on PCMK OBG 13AE/13BE, deck plate transverse joint. Welder was identified as 215993. QC was identified as ZPMC CWI Shi Lei (QC1). Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was ZPMC QC Wang Xiang Pin (QCA1), who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-T-2221-B-U2-S-4 as verbally identified by QCA1.

FCAW welding of weld joint OBE13B-002 located at the PCMK OBG 13AE/13BE, bottom plate transverse joint. Welders were identified as 055564, 055491, 050242. 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-2231-ESAB-1 as verbally identified by QCA1.

FCAW welding of weld joint OBE13B-003 located at the PCMK OBG 13AE/13BE, bottom plate transverse joint. Welders were identified as 051356, 052696. 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-2231-ESAB-1 as verbally identified by QCA1.

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ZPMC personnel positioned 5 transport/lift vehicles under OBG Segment 12E and moved the segment approximately 5 meters from OBG Segment 13AE.

Heat straightening of weld joints SEG3019W-041, 060 located at the PCMK OBG 14E at panel point 125. ZPMC workers had placed a tension on 2 chain hoists between a vertical I-rib on FB3061A and LD30412A while heating the weld joint. QC was identified as ZPMC CWI Li Yan Hua (QC2). Assisting QC2 at this location and appearing to be monitoring the heat treating operation and recording data was ZPMC QC Zhan Hai Feng (QCA2), who was not a CWI. Heat treatment variables recorded by QCA2 appeared to comply with ZPMC document HSR1(B)-10321 as presented to this QA Inspector and verbally identified by QCA2. See photos below of the bottom portion of HSR1(B)-10321 and the chain hoists in place with heat treatment being applied with an oxy-fuel torch.

SMAW repair welding of weld joint SEG3013D-1-065 located on PCMK OBG 14E. Welder was identified as 215553. QC was identified as QC2. Assisting QC2 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-345-SMAW-4G(4F)-FCM-repair-1 as displayed on ZPMC Weld Repair Report B-WR20874 as presented to this QA Inspector and verbally identified by QCA2.

SMAW repair welding of weld joint SEG3013AG-1-049 located on PCMK OBG 14E. Welder was identified as 044779. QC was identified as QC2. Assisting QC2 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-345-SMAW-1G(1F)-FCM-repair-1 as displayed on ZPMC Weld Repair Report B-WR20469 as presented to this QA Inspector and verbally identified by QCA2.

SMAW repair welding of weld joint SEG3019N-218 located on PCMK OBG 14E. Welder was identified as 044779. QC was identified as QC2. Assisting QC2 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-345-SMAW-3G(3F)-FCM-repair-1 as displayed on ZPMC Weld Repair Report B-WR20837 as presented to this QA Inspector and verbally identified by QCA2.

SMAW repair welding of weld joints VP3007-001-003, 015, 017, 018, 028 located on PCMK OBG 13CE. Welder was identified as 058102. QC was identified as QC2. Assisting QC2 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-345-SMAW-1G(1F)-FCM-repair-1 as displayed on ZPMC Weld Repair Report B-WR20767 as presented to this QA Inspector and verbally identified by QCA2.

FCAW welding of weld joints SA3030-001-001, 003, 005, 007; SA3030-002-001, 003, 005, 007 located at the PCMK OBG 13BE/13CE bottom plate transverse joint. Welder was identified as 050977. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. appeared to comply with WPS-B-T-2231-ESAB-1 as verbally identified by QCA2.

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

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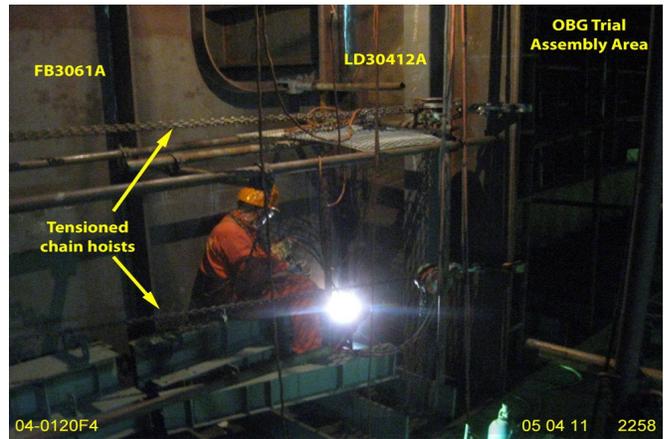
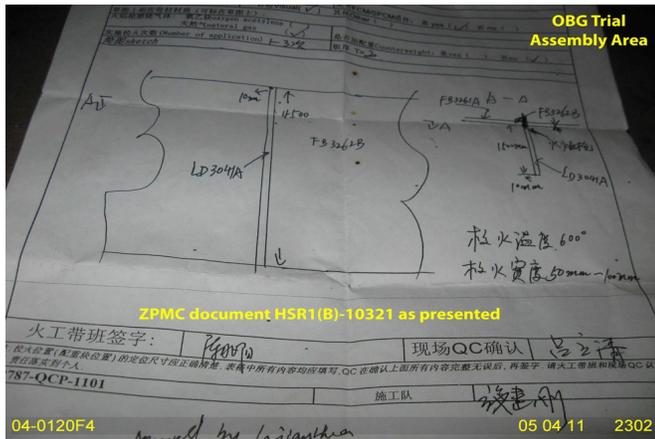
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## Summary of Conversations:

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 James Devey 15000026784, who represents the Office of Structural Materials for your project.

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**Inspected By:** Goulet, George

Quality Assurance Inspector

**Reviewed By:** Riley, Ken

QA Reviewer