

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-024586**Date Inspected:** 30-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**

In response to ZPMC NDT Inspection Notification Sheet #09310 for magnetic particle testing (MT) inspection of the following:

This QA Inspector performed random visual testing (VT) and then 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 members were identified as follows:

OBG Segment 14W, SEG3020Z. The weld designations reviewed were: 124~133, 146~149. No apparent indications were observed.

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

SMAW repair welding of various bottom plate I-rib to bottom plate holdback weld joints located at PCMK OBG 13AW/13BW transverse joint. Welder was identified as 066398. QC was identified as ZPMC CWI Li Peng Fei (QC1). Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was ZPMC QC Zhang Lin (QCA1), who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-345-SMAW-2G(2F)-FCM-repair-1 as verbally identified by QCA1.

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SMAW repair welding of weld joint SEG3013AH-149 located on PCMK OBG 13AW. Welder was identified as 047864. 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-345-SMAW-4G(4F)-FCM-repair-1 as displayed on ZPMC Weld Repair Report B-WR20966 as presented to this QA Inspector and verbally identified by QCA1.

SMAW repair welding of weld joint SEG3013G-087 located on PCMK OBG 13AW. Welder was identified as 066674. 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-345-SMAW-3G(3F)-FCM-repair-1 as displayed on ZPMC Weld Repair Report B-WR20604 as presented to this QA Inspector and verbally identified by QCA1.

FCAW welding of weld joint SEG3014F-313, 314, 318, 319, 323, 324 located on PCMK OBG 1BW. Welder was identified as 045240. 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-2132-ESAB as verbally identified by QCA1.

SMAW repair welding of weld joints SEG3015F-277, 281, 285 located on PCMK OBG 13CW. Welder was identified as 040270. 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-345-SMAW-3G(3F)-FCM-repair-1 as displayed on ZPMC Weld Repair Report B-WR21023 as presented to this QA Inspector and verbally identified by QCA1.

SMAW repair welding of various longitudinal diaphragm weld joints located at PCMK OBG 13BW. Welder was identified as 037998. 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-345-SMAW-3G(3F)-FCM-repair-1 as verbally identified by QCA1.

SMAW welding of weld joints DP3155-001-039, 040 located on PCMK OBG 13CW; DP3148-001-001, 001 located on PCMK OBG 14W, hold back welds. Welder was identified as 066881. 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-P-2112-FCM-1 and WPS-B-P-2114-FCM-1 as verbally identified by QCA1.

SMAW welding of weld joints LD3040-001-158, 159 located at PCMK OBG 13CW/14W, transverse joint area. Welder was identified as 069469. 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-P-2112-FCM-1 and WPS-B-P-2114-FCM-1 as verbally identified by QCA1.

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 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

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