

**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-021961**Date Inspected:** 25-Feb-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.

Bay 14

This QA Inspector randomly observed the following work in progress in the Bay 14:

SMAW tack welding during fit-up and then SMAW welding of weld joint SA3067-001-023 located on PCMK OBG 14. Tack welder was identified as 047749 and welder was identified as 044779. QC was identified as ABF CWI Bao Qian (QC1). Weld variables recorded by QC1 appeared to comply with WPS-B-P-2211-B-U3b as verbally identified by QC1. See photo below of the weld joint being preheated immediately prior to welding.

SMAW welding of weld joint SEG3020AP-014 located on PCMK OBG 14W. Welders were identified as 067764, 066038. QC was identified as ABF CWI Li Shi You (QC2). Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was ZPMC QC Li Ping (QCA2), who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-B-P-2214-TC-U4b-FCM-1 as verbally identified by QCA2.

FCAW welding of weld joint SEG3020BB-111 located on PCMK OBG 14W. Welder was identified as 067949. 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-B-T-2233-ESAB as verbally identified by QCA2.

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SMAW welding of weld joint DP3135-001-018 located on PCMK OBG 13BW. Welder was identified as 066443. 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-B-P-2213-TC-U4b-FCM-1 as verbally identified by QCA2.

SMAW welding of weld joint SEG3013B-001 located on PCMK OBG 13BW. Welder was identified as 045213. 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-B-P-2213-TC-U4b-FCM-1 as verbally identified by QCA2.

FCAW welding of weld joint SEG3013F-019 located on PCMK OBG 13AW. Welder was identified as 066421. 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-B-T-2232-ESAB as verbally identified by QCA2.

FCAW welding of weld joint SEG3013G-023 located on PCMK OBG 13AW. Welder was identified as 066421. 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-B-T-2232-ESAB as verbally identified by QCA2.

SMAW repair welding of weld joint DP3161-001-215 located on PCMK OBG 14E. Welder was identified as 037932. QC was identified as ABF CWI Bao Qian (QC3). Assisting QC3 at this location and appearing to be monitoring the welding operation and recording data was QCA3, who was not a CWI. Weld variables recorded by QCA3 appeared to comply with WPS-345-SMAW-2G(2F)-FCM-repair as displayed on ZPMC Weld Repair Report B-WR20250 presented to this QA Inspector and verbally identified by QCA3. See photo below of the repair as welded and cleaned.

SMAW repair welding of weld joint DP3167-001-244 located on PCMK OBG 14E. Welder was identified as 215553. QC was identified as QC3. Assisting QC3 at this location and appearing to be monitoring the welding operation and recording data was QCA3, who was not a CWI. Weld variables recorded by QCA3 appeared to comply with WPS-345-SMAW-2G(2F)-FCM-repair as displayed on ZPMC Weld Repair Report B-WR20271 presented to this QA Inspector and verbally identified by QCA3.

SMAW repair welding of weld joint DP3167-001-022 located on PCMK OBG 14E. Welder was identified as 050969. QC was identified as QC3. Assisting QC3 at this location and appearing to be monitoring the welding operation and recording data was QCA3, who was not a CWI. Weld variables recorded by QCA3 appeared to comply with WPS-345-SMAW-2G(2F)-FCM-repair as displayed on ZPMC Weld Repair Report B-WR20268 presented to this QA Inspector and verbally identified by QCA3.

SMAW repair welding of weld joint DP3160-001-219 located on PCMK OBG 14E. Welder was identified as 067656. QC was identified as QC3. Assisting QC3 at this location and appearing to be monitoring the welding operation and recording data was QCA3, who was not a CWI. Weld variables recorded by QCA3 appeared to comply with WPS-345-SMAW-2G(2F)-FCM-repair as displayed on ZPMC Weld Repair Report B-WR20272

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presented to this QA Inspector and verbally identified by QCA3.

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 Eric Tsang, 150-0042-2372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Goulet, George

Quality Assurance Inspector

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**Reviewed By:** Riley, Ken

QA Reviewer