

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-018144**Date Inspected:** 09-Nov-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang**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 Segments**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

OBG Trial Assembly Yard

Segment 11DW/11EW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated OBW11A-007, Deck Plate transverse splice. The welder is identified as #057333 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated OBW11C-007, Side Plate transverse splice. The welder is identified as #046709 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated OBW11C-008, Bottom Plate transverse splice. The welder is identified as

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#040609 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-B-T-2231-B-U2-F.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated OBW11C-009, Side Plate transverse splice. The welder is identified as #040656 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1.

Segment 11DW

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated SP666-001-023, Side Plate WT stiffener hold back weld. The welder is identified as #049220 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated SEG071*-049, Edge Plate to Side Plate hold back weld. The welder is identified as #053486 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-B-T-2231-TC-U4b-F.

Segment 11DE

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated SEG074A-013, Bottom Plate to Side Plate hold back weld. The welder is identified as #047353 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-B-T-2231T-2.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated SEG074A-014, Bottom Plate to Side Plate hold back weld. The welder is identified as #052763 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-B-T-2231T-2.

Segment 11EW

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated SP667-001-013, Side Plate WT stiffener hold back weld. The welder is identified as #049220 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated CA092-005, Edge Plate to Side Plate hold back weld. The welder is identified as #053486 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-B-T-2231-TC-U4b-F.

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Segment 11EE

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated SEG072A-044, Bottom Plate to Side Plate hold back weld. The welder is identified as #047353 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-B-T-2231T-2.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated SEG072A-045, Bottom Plate to Side Plate hold back weld. The welder is identified as #052763 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-B-T-2231T-2.

Segment 11CE/11DE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated OBE11A-004, Deck Plate transverse splice. The welder is identified as #044515 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1.

Cross Beam 15

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated CB202A-015-006, Side Panel to Bottom Panel hold back weld. The welder is identified as #052936 and was observed welding in the 2G (horizontal) position using approved Welding Procedure Specification WPS-B-P-2212-TC-U4b-FCM-1.

For the above mentioned welding activities ZPMC Quality Control (QC) Inspectors are identified as An Qing Xiang and Zhou Peng. The welding variables recorded by QC appeared to comply with the Applicable WPS.

Segment 11BW/11CW

This QA Inspector observed ABF personnel performing Magnetic Particle Testing on the Bottom Plate WT stiffener hold back fillet welds.

Segment 11AE/11BE

This QA Inspector observed ABF personnel performing Magnetic Particle Testing along the Bottom Plate transverse CJP splice at locations of removed fit up plates.

Segment 11DE

This QA Inspector observed the installation of the FL3 Bottom Panel at panel points 104-106.

QA Verification

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BAY 11 - Bolt Testing Room

This QA Inspector observed ZPMC personnel performing Rotational Capacity testing and Pre-installation verification of required torque for A325 High Strength Bolt assemblies with a Skidmore-Wilhelm Model: MS, serial number: 15866 (calibration expiration date 4/29/11) and torque wrench identified as #2 (calibration expiration date 4/14/11) on the following bolts:

M22x65 Lot # DHGM220070

5 bolt assemblies were tested per lot

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

Summary of Conversations:

No relevant conversations.

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: | Hernandez,Dan | Quality Assurance Inspector |
| Reviewed By: | Dsouza,Christopher | QA Reviewer |
