

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-017477**Date Inspected:** 20-Oct-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

Weld Lab

This QA Inspector observed the welding of 2 Procedure Qualification Records (PQR) using the Flux Cored Arc Welding (FCAW) process. The PQR was performed using ESAB E71T-1M Dual Shield 70 Ultra Plus electrode. The electrode is 1.4mm in diameter, Lot # 89926. The test plate configuration was a Fillet weld T-Joint, T1 and T2 was 25mm in thickness and 350mm in length. The test plate material is identified as A709 GR345. The welder was identified as Zhou Bin.

PQR HP2010120-1, The Welding Procedure Specification (WPS) followed was PWPS-B-T-2132 in the 2F (horizontal) position.

PQR HP2010121-1, The Welding Procedure Specification (WPS) followed was PWPS-B-T-2133 in the 3F (vertical) position.

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The Fillet Weld Soundness Test requirements were followed completing one test with the maximum size single pass fillet weld and one test with the minimum size multiple pass fillet weld to be used in fabrication, the two test were combine on one test plate for each position to be used.

The Following personnel were present during PQR qualification:

ABF-Steve Lawton, Peter Ferguson

OBG Trial Assembly Yard

Segment 10AE

This QA Inspector observed Base Metal Repair using the Shielded Metal Arc Welding (SMAW) process at locations of removed temporary stiffener on the FL3 web at panel point 86. The welder is identified as #040383 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-345-SMAW-3G (3F)-FCM-repair-1 for CWR1799.

For the above mentioned welding activities ZPMC Quality Control (QC) Inspector is identified as Wang Li Yang. The welding variables recorded by QC appeared to comply with the Applicable WPS.

Segment 11AW/11BW

This QA Inspector observed ABF personnel performing Ultrasonic Testing on the Side Plate transverse CJP splice, counter weight side.

Segment 10AW

This QA Inspector observed ZPMC personnel performing Ultrasonic Testing on the web splice and flange splice of the partial height diaphragm at panel points 87-88.

Segment 10CW

This QA Inspector observed ZPMC personnel performing Ultrasonic Testing on the web splice and flange splice of the partial height diaphragm at panel points 93-94.

Segment 11BW/11CW

This QA Inspector observed fit up of the Side Plate Transverse CJP splice, cross beam and counter weight side.

Segment 11DE

This QA Inspector observed the 11DE was placed in the trial assembly line up.

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

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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.

Inspected By: Hernandez, Dan

Quality Assurance Inspector

Reviewed By: Peterson, Art

QA Reviewer