

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-022386**Date Inspected:** 05-Apr-2011**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:** Zhu Zhong Hai**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

Cross Beam 17

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a UT repair on a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated CB3001A-017-017, Bottom Panel to Side Panel. The welder is identified as #066459 and was observed welding in the 2G (horizontal) position using approved Welding Procedure Specification WPS-345-SMAW-2G (2F)-FCM-repair-1 for CWR2891.

Segment 13AE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a UT repair on a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated SEG3007G-002, Deck Plate Diaphragm splice. The welder is identified as #067183 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-345-SMAW-3G (3F)-FCM-repair-1 for WR20507.

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This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a UT repair on a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated SEG3007D-045, Side Plate to FL3. The welder is identified as #067183 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G (4F)-FCM-repair-1 for WR20494.

Segment 13AW

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated SEG3013F-112, Side Plate I-rib splice. The welder is identified as #048433 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-2233-ESAB.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated SEG3013D-179, Side Plate I-rib splice. The welder is identified as #048696 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-2233-ESAB.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a UT repair on a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated SEG3013A-007, Side Plate I-rib. The welder is identified as #067575 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G (4F)-FCM-repair-1 for WR20573.

For the above mentioned welding activities ZPMC Quality Control (QC) Inspector is identified as Li Hua Jie, Shen Jian Bo and Li Yang. The welding variables recorded by QC appeared to comply with the Applicable WPS.

Segment 12AW

This QA Inspector observed drilling of bolt holes in the Deck Plate for Barrier Rail connection at panel points 111-112, cross beam side.

Segment 12BW/12CW

This QA Inspector observed ABF personnel performing Magnetic Particle Testing on the Drip Plate to Side Plate at the transverse segment splice, counter weight side.

Segment 13AE

This QA Inspector observed ABF personnel performing Magnetic Particle Testing on the Side Plate at locations of removed temporary welds from jig fixture, bike path side.

Segment 12AE

This QA Inspector observed tightening of high strength bolts with the use of a pneumatic impact wrench on the Deck Plate U-rib splice plates, east of panel point 112.

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Segment 12BE/12CE

This QA Inspector observed the installing of bolted splice plate at the Deck Plate U-rib transverse splice.

Mechanical Test Weld Lab

This QA Inspector observed mechanical side bend test for welder qualification using the SMAW process in the 4G (overhead) position for the following ZPMC personnel:

Welder ID #

066416

066268

037779

067588

067707

070007

070432

067520

067079

037997

066733

066002

066479

069682

069712

067184

066881

066882

067275

070009

066746

066421

068859

066156

066418

066459

068494

066359

066477

051547

047866

048941

047858

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The results of the side bend test were acceptable for the above mentioned personnel

068918

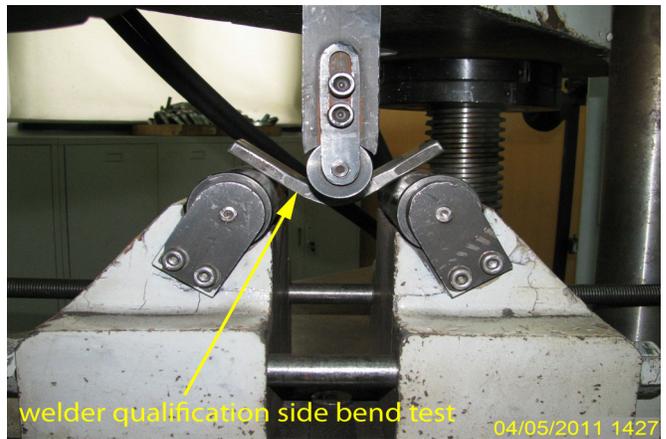
066236

067601

048433

The results of the side bend test were rejected for the above mentioned personnel

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



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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
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Reviewed By:	Miller,Mark	QA Reviewer
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