

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-016920**Date Inspected:** 25-Sep-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 Segment**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.

Weld Lab

This QA Inspector observed the welding of Procedure Qualification Record (PQR) HP2010117 using the Flux Cored Arc Welding (FCAW) process in the 1G (flat) position using ESAB E71T-M Dual Shield 70 Ultra Plus electrode. The electrode is 1.4mm in diameter, Lot # 89926. The Welding Procedure Specification (WPS) followed was PWPS-B-T-2233. The test plate configuration was a Complete Joint Penetration (CJP) Single Bevel Groove weld Butt Joint, 25mm in thickness and 700mm in length using a 10mm x 75mm backing bar. The test plate material is identified as A709 GR345. Nine (9) weld passes were used to complete the groove weld. The welder was identified as Liu Xie.

The Following personnel were present during PQR qualification:

ZPMC-CWI Li Yang

OBG Trial Assembly Yard

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Segment 10CE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SEG064A-030, Edge Plate to Side Plate hold back weld. The welder is identified as #040320 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-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 as CA078-005, Edge Plate to Side Plate hold back weld. The welder is identified as #040458 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-B-T-2231-TC-U4b-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 as SEG064*-035, Edge Plate to Deck Plate hold back weld. The welder is identified as #044504 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

Segment 11AE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as CA081-001, Edge Plate to Side Plate hold back weld. The welder is identified as #040320 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-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 as CA082-005, Edge Plate to Side Plate hold back weld. The welder is identified as #040458 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-B-T-2231-TC-U4b-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 as CA081-005, Edge Plate to Deck Plate hold back weld. The welder is identified as #044504 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

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 10BW/10CW

This QA Inspector observed ABF personnel performing Magnetic Particle Testing on the Deck Plate transverse CJP splice and locations of removed fit up plates.

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

Reviewed By: Peterson,Art

QA Reviewer