

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-022186**Date Inspected:** 30-Mar-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

Segment 12AW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated SEG3004AD-001, Service Platform Bracket to Side Plate after back gouge. The welder is identified as #046709 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

Segment 13AW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated SEG3013Q-086, FL3 I-rib. The welder is identified as #069683 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

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This QA Inspector observed Flux Core Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated SEG3013E-039, Bottom Plate I-rib to Floor Beam. The welder is identified as #040433 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 SEG3013AD-035, Side Plate to FL3. The welder is identified as #070432 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-345-SMAW-3G (3F)-FCM-repair-1 for WR20534.

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 SEG3013AD-008, Side Plate to FL3. The welder is identified as #047864 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G (4F)-FCM-repair-1 for WR20534.

Segment 13AE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated SEG3007AD-134, FL3 full height stiffener to Side Plate. The welder is identified as #067183 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) Inspectors are identified as Zhou Peng, Shen Jian Bo and Liu Fang. The welding variables recorded by QC appeared to comply with the Applicable WPS.

Segment 12AW

This QA Inspector observed ABF personnel performing Magnetic Particle Testing on the Service Platform bracket.

This QA Inspector observed back gouging root pass of CJP welds of Service Platform bracket.

Segment 13AW

This QA Inspector observed ABF personnel performing Ultrasonic Testing on the Side Plate to Bottom Plate longitudinal splice, counter weight side.

Segment 13AE

This QA Inspector observed deburring of bolt holes in Bottom Plate.

This QA Inspector observed excavating UT rejects by arc gouge in the Side Plate to Bottom Plate longitudinal splice, cross beam side.

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QA Verification

This QA Inspector performed Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ABF MT personnel. The following items were tested:

12 west

DP3070-001-037
DP3070-001-166
SEG3006B-114
SEG3005D-134
SEG3006H-131
SEG3006K-132
CA3010C-262
CA3010C-214
CA3008C-124
CA3008C-076
CA3010D-061
CA3010D-013
CA3010E-263
CA3010E-213

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



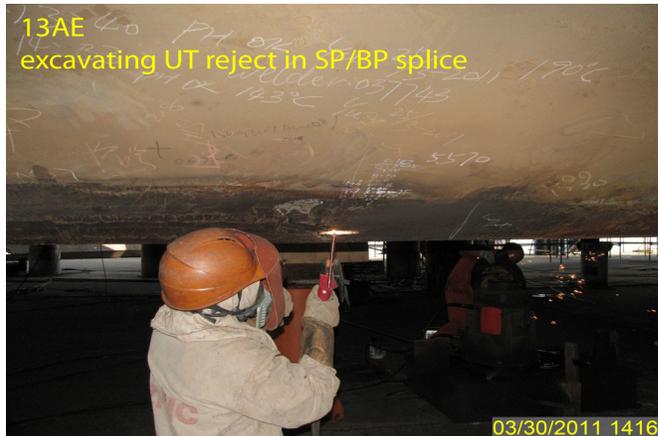
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13AW
ABF UT SP/BP splice



13AE
excavating UT reject in SP/BP splice



13AE
deburring of bolt holes in bottom plate



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: Miller,Mark

QA Reviewer
