

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 #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021531**Date Inspected:** 06-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) Chanxing Island**Location:** Shanghai, China**CWI Name:** Mr. Qui Wen**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 Inspector (QA), Vibin Kumar Selvanayaham, was present during the times noted above for observations relative to the work being performed.

Ultrasonic Testing (UT) – NWIT Document No: 008471

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The members are identified as OBG Segment 14W and 13AW. The weld designations reviewed are as follows:

1. DP3174-001-018, 393
2. SEG3013AH-039

Ultrasonic Testing (UT) – NWIT Document No: 008473

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The members are identified as OBG Segment 13AE. The weld designations reviewed are as follows:

1. SEG3007L-126, 127, 127, 130, 138
2. SEG3007Q-222, 225, 220

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Description of Incident: During the Quality Assurance Ultrasonic Testing (UT) review of weld located on Segment 13AE, these Quality Assurance Inspector (QA) discovered the following issue:

- One (1) Class “A” indication measuring approximately 25mm in length.
- The welds are Complete Joint Penetration ‘T’ weld joining the bottom plate RS-stiffener to Floor Beam at panel point 118 bike path side.
- The D-rating is +8dB and length approximately 25mm.
- The Thickness of the plate is 25mm and depth of the indication approximately 22mm.
- The indication is located on the weld joint identified as SEG3013Q-220
- The “Y” location for this indication approximately 70mm from top of stiffener.
- The indication is clearly marked by the QA near the weld.
- This weld is identified as Seismic Performance Critical Member (SPCM).
- OBG Segment 13AE is located in the north side of fabrication bay 14.
- The Notice of Witness Inspection Number (NWIT) is 008471.
- The indication is located within the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC’s QC personnel are required to perform 100% UT inspection of this weld.

Bay 14

This QA Inspector observed the following work in progress:

Shielded Metal Arc Welding (SMAW) welding of weld joint SEG3020R-020 located on Floor Beam to Floor Beam of OBG Segment 14W. ZPMC Welder is identified as 045246. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2212-B-U2-FCM-1.

SMAW welding of weld joint SEG3020AZ-068, 073, 128 and 132 located on Side Plate to Floor Beam Stiffeners of OBG Segment 14W. ZPMC Welder is identified as 067572. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2114-FCM-1.

Flux Core Arc Welding (FCAW) welding of weld joint SEG3020AZ-067, 072, 122 and 177 located on Side Plate to Floor Beam Stiffeners of OBG Segment 14W. ZPMC Welder is identified as 047896. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2132-ESAB.

FCAW welding of weld joint SEG3020AW-089 located on Side Plate to Edge Plate of OBG Segment 14W. ZPMC Welder is identified as 066239. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2232-ESAB.

SMAW welding of weld joint EP3030-001-056 and 108 located on Edge Plate to Floor Beam Stiffeners of OBG Segment 14W. ZPMC Welder is identified as 045246. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2212-B-U2-FCM-1.

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This QA inspector observed ZPMC personnel performed Magnetic Testing after root pass FCAW welding on Deck Plate to Deck Plate splice weld at cross beam of OBG Segment 13AW. The weld number is identified as SEG3013-012. See the attached picture.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

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 , who represents the Office of Structural Materials for your project.

Inspected By: Kumar,Vibin

Quality Assurance Inspector

Reviewed By: Patel,Hiranch

QA Reviewer