

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-019497**Date Inspected:** 23-Jan-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.

Bay 14

This QA Inspector observed the following work in progress:

Flux Core Arc Welding (FCAW) repair welding of weld joint SEG3020BB-028 located on Vertical Shear Plate to Bottom Plate of OBG Segment 14W. ZPMC Welder is identified as 066695. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-FCAW-2G (2F) – FCM – ESAB- Repair-1, which is used as per Critical Welding Repair (CWR) B-CWR-2750.

FCAW repair welding of weld joint SEG3020BB-010 located on Vertical Shear Plate to Bottom Plate of OBG Segment 14W. ZPMC Welder is identified as 067942. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-FCAW-2G (2F) – FCM – ESAB- Repair-1, which is used as per Welding Repair Report (WRR) B-WRR-20164.

FCAW welding of weld joint SEG3020A-389 and 403 located on Floor Beam to Bottom Plate of OBG Segment 14W. ZPMC Welder is identified as 067949. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2233-ESAB.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

Shielded Metal Arc Welding (SMAW) repair welding of weld joint SEG3020X-004 located on Floor Beam to Longitudinal Diaphragm of OBG Segment 14W. ZPMC Welder is identified as 066398. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-3G (3F) – FCM – Repair-1, which is used as per Welding Repair Report (WRR) B-WRR-19827.

SMAW welding of weld joint SEG3020AX-017, 022 and 027 located on Side Plate to Floor Beam of OBG Segment 14W. ZPMC Welder is identified as 067609. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2214-Tc-U4b-FCM-1.

FCAW welding of weld joint SEG3020M-188 and 189 located on Edge Beam and Bottom Plate of the OBG Segment 13BW. ZPMC Welders are identified as 066236 and 201215. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2232-ESAB.

FCAW welding of weld joint SEG3014B-016 and 017 located on Floor Beam to Deck Panel Diaphragm of the OBG Segment 13BW. ZPMC Welder is identified as 066734. 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.

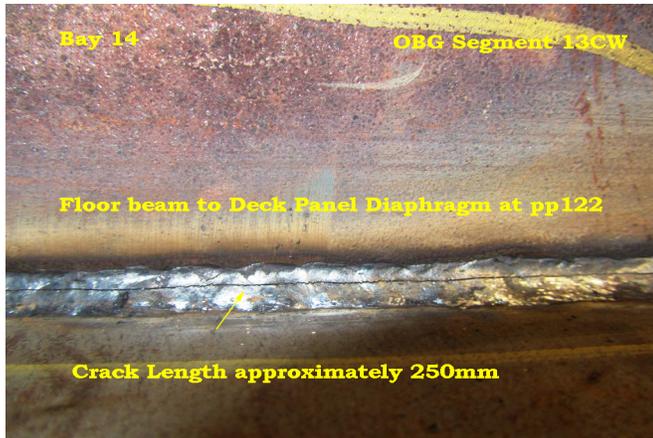
FCAW welding of weld joint SEG3014D-004 and 005 located on Floor Beam to Deck Panel Diaphragm of the OBG Segment 13BW. ZPMC Welder is identified as 067275. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2232-ESAB.

Description of Incident: During the Quality Assurance random visual inspection of welds located on Segment 13CW at panel point 122.5, this Quality Assurance Inspector (QA) observed that ZMPC personnel performed welding on Floor beam to deck panel diaphragm weld, during this heat straightening at panel point 123 the Floor Beam Flange to Deck Panel Diaphragm Tack Welds are get cracks after that ZPMC personnel performed welding over same place. Second time also same place tack weld are crack though out weld length. It happens at pp122.5 and 122 counter weight side OBG Segment 13CW. This weld is a Complete Joint Penetration (CJP) weld joining the floor beam flange to deck panel diaphragm. The floor beam flange to deck panel diaphragm weld is identified as SPCM. This weld is designated as Seismic Performance Critical Member (SPCM). OBG segment 13CW is located West Side of Bay 14 area. The ZPMC QC is identified as Mr. Li Ming Yang. QA inform to ZPMC that prior to the repair welding, to prepare CWR and ensure with VT and MT all defect have been removed. See the attaché picture.

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

WELDING INSPECTION REPORT

(Continued Page 3 of 3)



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