

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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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-019083**Date Inspected:** 21-Dec-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) Chanxing Island**Location:** Shanghai, China

CWI Name:	Mr. Geng Wei		
Inspected CWI report:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A

CWI Present:	Yes	No	
Rod Oven in Use:	Yes	No	N/A
Weld Procedures Followed:	Yes	No	N/A
Verified Joint Fit-up:	Yes	No	N/A
Approved WPS:	Yes	No	N/A
Delayed / Cancelled:	Yes	No	N/A

Bridge No: 34-0006**Component:** OBG Bike Path**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.

Magnetic Particle Testing (MT) – NWIT Document No's: 007867

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as OBG Segment. The weld designations reviewed are as follows:

1. DP3089-001-034, 043, 053, 064, 076, 085, 095, 105
2. DP3089-001-118, 127, 137, 147, 160, 169, 180, 189
3. DP3089-001-124, 134, 144, 154, 166, 176, 186, 196
4. DP3089-001-040, 049, 060, 070, 082, 092, 102, 107, 112
5. DP3089-001-032, 042, 052, 062, 072, 074, 084, 094, 104, 114
6. DP3089-001-116, 126, 136, 146, 156, 158, 168, 178, 188, 198

Description of Incident: During the Quality Assurance Magnetic Particle Testing (MT) review of welds located on OBG Segment 13CE, this Quality Assurance Inspector (QA) discovered that two (2) porosity measuring approximately 3-4mm in diameter. The weld is identified as: DP3089-001-105. This weld is a fillet weld joining the Deck Panel U-Rib to Deck Panel Diaphragm. The Deck Panel U-Rib and Deck Panel Diaphragm are identified as SPCM. This weld is designated as Seismic Performance Critical Member (SPCM). The indication is clearly

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marked on the material near the weld. OBG segment 13CE is located East Side of Bay 14 area. The Indication is located within an area that has been previously tested by ZPMC Quality Control (QC) personnel. As per contract documents ZPMC is required to perform 100% Magnetic particle Testing (MT) of this weld. The ZPMC QC is identified as Mr. Zhong Guo Hui. See the attaché picture.

Bay 14

This QA Inspector observed the following work in progress:

Shielded Metal Arc Welding (SMAW) welding of weld joint SEG3013Q-065 located on Floor Beam to Side Plate to Edge Plate of the OBG Segment 13CW. ZPMC Welder is identified as 067876. ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2232-ESAB.

SMAW repair welding of weld joint DP3148-001-257 located on deck panel to deck panel longitudinal diaphragm joint of OBG Segment 13CW. ZPMC Welder is identified as 037780. ZPMC Quality Control (QC) is identified as Mr. Li Ming Yang. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-2G (2F) – FCM – Repair, which is used as per Critical Welding Repair (CWR) B-CWR-2417.

Flux Core Arc Welding (FCAW) welding of weld joint SEG3015K-186, 187 located on Floor Beam to Edge Plate of the OBG Segment 13CW. ZPMC Welder is identified as 068924. ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-2232-ESAB.

FCAW welding of weld joint SEG3020E-056 and 057 located on Floor Beam to bottom plate of the OBG Segment 14W. ZPMC Welders are identified as 047866 and 202122. 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 SEG3020G-022 and 023 located on Longitudinal Diaphragm to Floor Beam of the OBG Segment 14W. ZPMC Welder is identified as 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-2233-ESAB.

FCAW welding of weld joint SEG3020H-075 and 076 located on Longitudinal Diaphragm to Floor Beam of the OBG Segment 14W. ZPMC Welder is identified as 066439. 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.

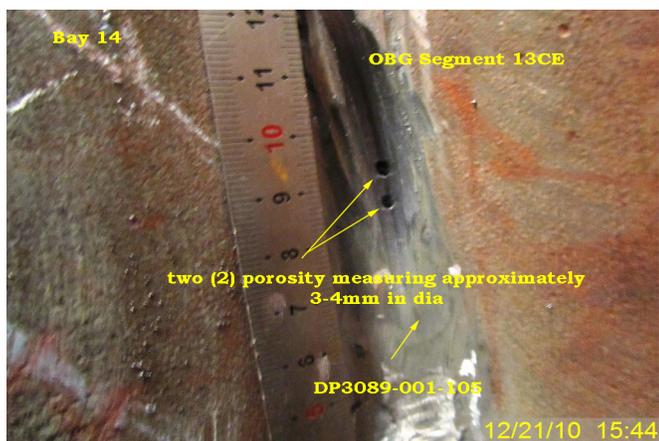
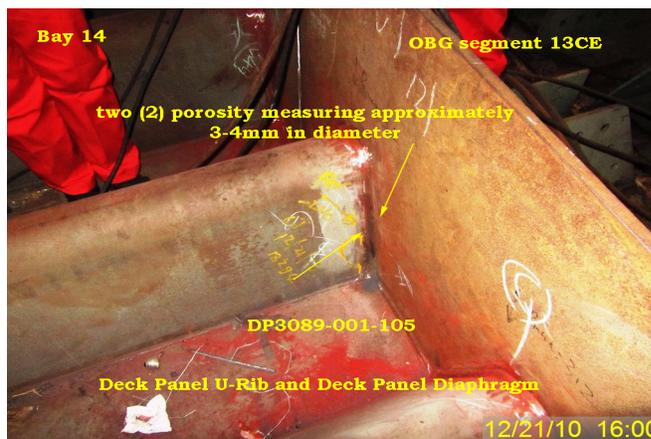
FCAW welding of weld joint SEG3020H-042 and 043 located on Bottom plate I-stiffener to Floor Beam of the OBG Segment 14W. ZPMC Welder is identified as 045175. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS- B-T-2133-ESAB.

This QA inspector observed that ZPMC personnel performed Ultrasonic Testing on deck plate to deck plate of OBG Segment 14E and the weld joint is identified as DP1351-001-013. See the attached picture.

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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