

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-020452**Date Inspected:** 09-Feb-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:** Li Yan Hua**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**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Nagalingam Pandaram Pillai was present during the times noted above for observations relative to the work being performed.

Ultrasonic Testing:-

BAY#14

This QA Inspector performed Ultrasonic testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality control personnel. This QA inspector generated a (UT) report for this date. The members are identified as 13AE Bottom panel stiffeners to Floor Beam. The weld designation reviewed is as follows:

SEG3007P-217,224,230,235,240,245,250

Magnetic Particle Testing:-

BAY#14

This QA inspector performed Magnetic Particle Testing (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 member is identified as OBG Segment 13AE. The weld designation reviewed is as follows:

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SEG3007H-102,103,086,087,082,083
SEG3007AU-050,052,045,047,028,029

In process Inspection:-

BAY#14

This QA Inspector observed the following work in progress:

FCAW in the 2G position for the OBG Segment 13CE Deck panel diaphragm to Floor beam flange. The weld joint was designated as: SEG3011B-006. The welder is identified as #066041. ZPMC QC is identified as Mr. Zhong Yong Hong .The welding variables recorded by QC appear to comply with WPS-B-T-2232-ESAB. Please see the attached picture.

This QA Inspector observed the following work in progress:

FCAW in the 2G position for the OBG Segment 13BE Deck panel diaphragm to Floor beam flange. The weld joint was designated as: SEG3009B-006. The welder is identified as #066881. ZPMC QC is identified as Mr. Zhong Yong Hong .The welding variables recorded by QC appear to comply with WPS-B-T-2232-ESAB.

This QA Inspector observed the following work in progress:

FCAW in the 3G position for the OBG Segment 13CE Deck panel diaphragm to Deck panel diaphragm. The weld joint was designated as: SEG3011C-001. The welder is identified as #052696. ZPMC QC is identified as Mr. Zhong Yong Hong .The welding variables recorded by QC appear to comply with WPS-B-T-2233-ESAB.

This QA inspector observed the following work in progress:

SMAW welding of weld joint no: SEG3007AD-035 located on OBG Segment 13AE Floor Beam to Side panel. Welder is identified as #216086. ZPMC QC is identified as Mr. Zhong Qiang. Welding was performed according to the weld repair report B-WR 20210.The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-2G(2F)-FCM-Repair-1.Please see the attached pictures.

This QA Inspector observed the following work in progress:

FCAW in the 3G position for the OBG Segment 13AE Floor Beam stiffener. The weld joint was designated as: SEG3007T-110. The welder is identified as #050242. ZPMC QC is identified as Mr. Zhong Qiang.The welding variables recorded by QC appear to comply with WPS-B-T-2233-ESAB.

This QA Inspector observed the following work in progress:

FCAW in the 3G position for the OBG Segment 14E Anchor Plate to Vertical Shear Plate. The weld joint was designated as: SEG3019BB-047. The welder is identified as #066763. ZPMC QC is identified as Mr.Guo shi hui . The welding variables recorded by QC appear to comply with WPS-B-T-2233-ESAB.

Visual Inspection:-

During the Quality Assurance random visual inspection of welds located on Deck panel diaphragm of OBG

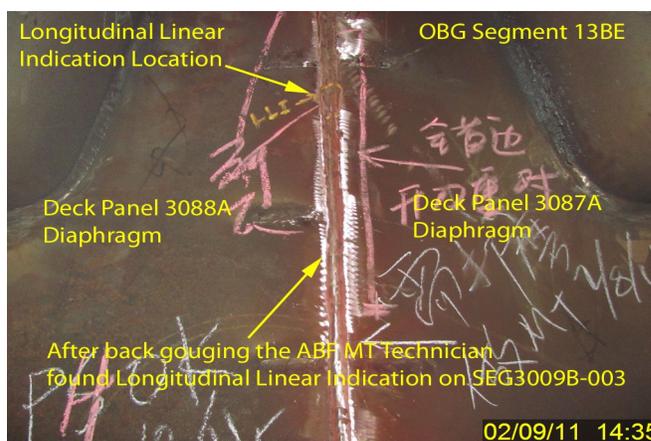
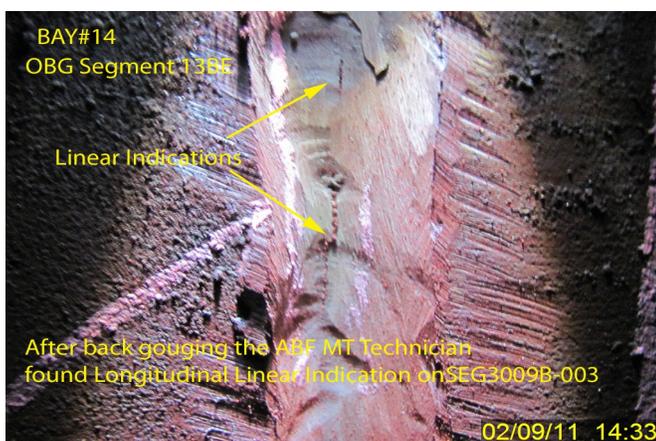
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Segment 13BE, this Quality Assurance Inspector (QA) observed the following issues;

Two Linear Longitudinal Indications were found measuring approximately 10mm and 15mm lengths respectively. After back gouging, these indications were discovered visually and confirmed by Magnetic particle Testing (MT) by ABF MT personnel. The indications are clearly marked on the material near the weld for further repair. The weld number is identified as SEG3009B-003. The panel point is identified as a PP122. This weld is a CJP weld joining the Deck Panel Diaphragm to Deck Panel Diaphragm. The above mentioned discrepancy was informed to ABF QA, ZPMC QA and the Lead Inspector for further action. Please see the attached picture.

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



Summary of Conversations:

No Relevant Conversation.

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: Pillai, Pandaram

Quality Assurance Inspector

Reviewed By: Patel, Hiranch

QA Reviewer