

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 #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-023274**Date Inspected:** 05-May-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 1500**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** ShangHai, China**CWI Name:** Shi Yu**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:**

Summary of Items Observed: On this date Caltrans OSM Quality Assurance(QA) Inspector, DJ Shin was present during the times noted above for observations relative to the work being performed.

Bay 11

This QA Inspector observed the following work in progress for Bay 11.

ZPMC was using the Shield Metal Arc Welding (SMAW) process.

ZPMC QC is identified as Wang Chuang Xin

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector

Components: Tower lift 6

PCMK: ESD1-TBSA7-4B/B-1B~5B

Welder: 202354

WPS-B-P-2212, 2213, 2214-TC-U5b

PCMK: WSD1-TBSA7-4A/B-1B~7B

Welder: 041271

WPS-B-P-2212, 2213, 2214-TC-U5b

Trial Assembly

This QA inspector performed Ultrasonic Testing (UT) of approximately 10 % of the area previously tested and

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The member(s) is/are identified as follows; OBG 13AE and 13AW, on item number 8~13, of NWIT tracker document # 09037.

This QA inspector has issued Incident Report for rejectable UT indication and excess gap between backing bar and stiffener plate on SEG3013AH-037.

Description of Incident: During the Quality Assurance (QA) performing verification Ultrasonic Testing (UT) and Visual testing(VT), review of welds located on the OBG 13AW, This QA Inspector discovered the following issues:

- One (1) Rejectable UT indication measuring approximately 170mm in length. (Entire length of weld)
- The Indication rating is -3dB.
- The nominal thickness of the plate is 22mm and depth of the indication approximately 17mm.
- The indication is located on the weld joint identified as SEG3013AH-037.
- The weld is a Complete Joint Penetration (CJP) Tee weld joint with backing, joining the rib stiffener to the floor beam web.
- A Gap of up to 10mm was observed at the weld root between the backing bar and the stiffener plate.
- The indications are clearly marked by the QA Inspectors near the weld.
- The 13AW is located at Trial assembly yard.

The Notice of Witness Inspection Number (NWIT) is 09037 (Item Number 9). The indications are located within the area that has been previously tested and accepted by ABF Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% UT inspection of this weld.

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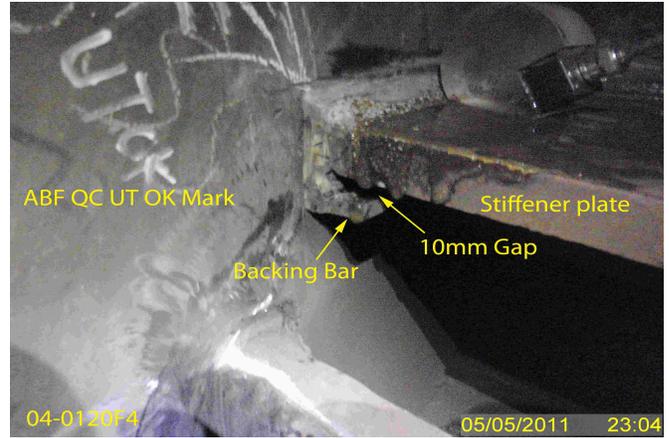
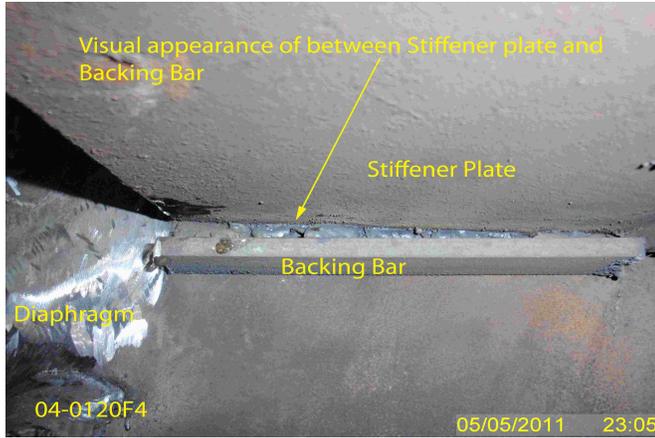
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Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)



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 15000422372, who represents the Office of Structural Materials for your project.

Inspected By: Shin,DJ

Quality Assurance Inspector

Reviewed By: Riley,Ken

QA Reviewer