

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003010**Date Inspected:** 09-Jun-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Fu Yu Hong**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:** Tower**Summary of Items Observed:**

CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the fabrication scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

The QA inspector performed ultrasonic testing (UT) at the completed joint penetration at the skin plates splices weld joints # SSD1-SA 179-D/E-24E; SSD1-SA-179-D/E-25A, SSD1-SA-179-D/E-13A, SSD1-SA-180-D/E 14 A, SSD1-SA-180-D/E-42B, SSD1-SA-180 A/E-43 B, SSD1-SA-180 B/E 24B and SSD1-SA-180-B/E-23B. The QA inspector performed 10 % UT at random locations. The QA inspector found that welds areas tested appeared to be in compliance with the contract documents. See UT report TL_6027 generated on this date.

Skin C South lift 1

The QA inspector observed ZPMC welder operator Liu Zhenhong performing welding operations with the submerged arc welding (SAW) process using the WPS-BT2221-U3 c-S-1 in the flat (1G) position at the weld joint # SSD1-SA17 F/G-1 skin C. The QA inspector performed random welding parameters verifications. The QA inspector found that the welding parameters appeared to be in compliance with the contract documents.

The QA inspector had a conversation with task Leader Albert Carreon. The QA inspector was informed that ZPMC had repaired notches on the skin plate A South and East lift #1 at the shear link connections access holes without the Engineer approval.

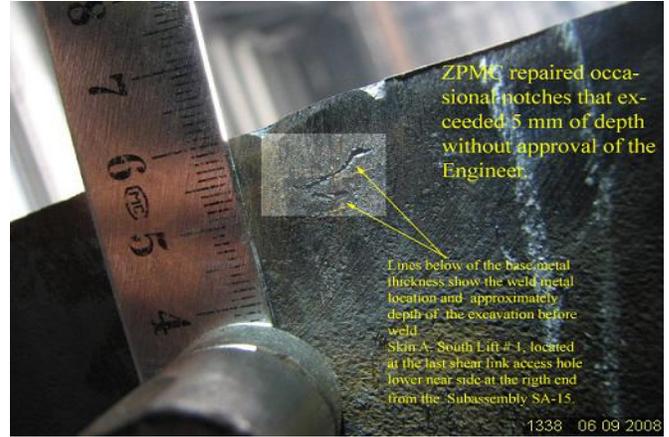
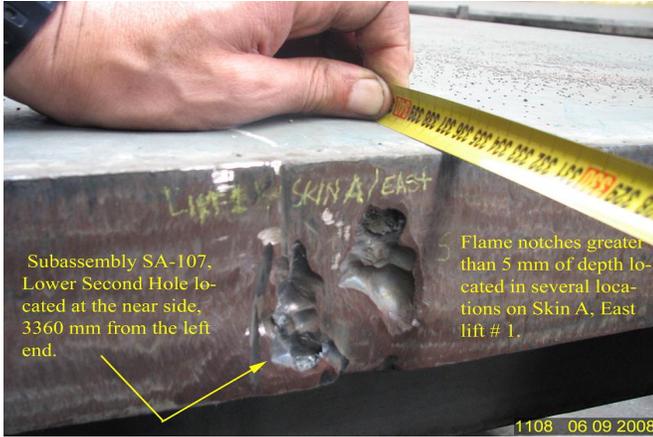
The QA inspector performed dimensional verifications on the oxyfuel flame notches located at the shear link

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

connections access holes from the skin A East lift #1. The QA inspector found flames notches approximately 8 mm of maximum depth .

Also the QA inspector performed dimensional inspection to the flame notches at the skin A South lift # 1 after ZPMC performed the weld repair. The QA inspector observed marks from the fusion lines where appeared (marks below the base metal thickness) to be the start of the notch before welding with approximately 7-9 mm of depth. The QA inspector informed to Mr. Albert Carreon of the QA inspector finding. The QA inspector was informed to write an incident report because ZPMC repaired flame notches without the Engineer approval. The photos below shows the notches after weld repair.



Summary of Conversations:

As noted above.

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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By: Acuna, Alfredo

Quality Assurance Inspector

Reviewed By: Cochran, Jim

QA Reviewer