

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003009**Date Inspected:** 10-Jun-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**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:** OBG and 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 ESD1 SA-107 F/J-1B, ESD1 SA-107 F/J-2B, ESD1 SA-107 F/J-14B, ESD1 SA294 A/G- 12B, ESD1-SA294 A/G-4A, ESD1 SA-216 A/K-4A/4B. 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.

The QA inspector observed ZPMC performing layout, cutting, beveling, milling, fitting and welding activities in bay # 1 and 2 on Tower Assembly shops.

Skin C South lift 1

The QA inspector observed ZPMC Welding operator Xu Xiushui 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 G/G-59B 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. .

Skin B South lift 1

The QA inspector observed ZPMC performing welding operations with the submerged arc welding (SAW) process using the WPS-BT2221-U3 c-S in the flat (1G) position at the junction of the weld joint # SSD1-SA-16

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A/G-42B skin E. 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. Welding operator was Yu Yan (052917) and the Certified Welder Inspector was Xu Leng Feng.

The QA inspector observed ZPMC performing heat straightening operations at the plate # p203(s), P1271(s) correcting a 3 mm deformation according with HSR1(T)-2340. The heat straightening operations appeared to be in compliance with the contract documents.

OBG Deck panel

ZPMC UT PJP U-ribs Test Specimen

The QA inspector had a conversation with Caltrans Task Leader Dave McClary. Mr. McClary informed the QA inspector that ABF was performing the UT verifications to evaluate ZPMC test samples for testing ZPMC UT personnel at the partial penetration joint (PJP) closed ribs to deck plates. The QA inspector informed that the QA inspector needed to evaluate the plate and provide the information to ABF representatives. ABF was going to use the results to evaluate the PJP UT test specimens.

ZPMC UT PJP U-ribs Test Specimen

The QA inspector performed UT verifications at the UT operator test coupons welds designated as 2A and 2B (The test coupons consisted on 4 PJP welds). The QA inspector found numerous locations with lack of penetration base on the notch size greater than 2.4 mm at the weld joint 2A and 2B. However, after measuring the thickness of the U-ribs the welds appeared to be in accordance minimum design depth of penetration of 9.6 mm. See modified TL-6027 generated on 06-12-08.

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
