

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-003008**Date Inspected:** 11-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 observed ZPMC performing layout, cutting, beveling, milling, fitting and welding activities in bay # 1 and 2 on Tower Assembly shop.

Skin C 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-1 in the flat (1G) position at the junction of section SSD1-SA17 F/G-1 skin C. The QA inspector performed welding parameters verifications. The QA inspector found that the welding parameters appeared to be in compliance with the contract documents.

Skin A South Lift # 1

The QA inspector observed ZPMC QC Cai Xin Xin performing magnetic particle inspection to the weld joint SSD1-SA-159-D/J-25 stiffeners connections.

Skin A East 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 # ESD1-SA-107-21A (B) skin A. The QA inspector performed welding parameters verifications. The QA inspector found that the welding parameters appeared to be in compliance with the contract documents.

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Note: The QA inspector observed ZPMC was cutting bevels, back gouging, laying out, fitting skin plates members.

OBG Deck panel

ZPMC UT PJP U-ribs Test Specimen

The QA inspector performed UT verifications at the test sample. The test sample consisted on 4 welds that from a 2 partial penetrations (PJP) welds. The QA found that weld 2A and 2B appeared to be in accordance minimum design 9.6 mm depth of penetration. The QA inspector performed thickness readings. See modified TL-6027 generated on 06-12-08.

ZPMC lack of penetration (LOP) Repair weld procedure

The QA inspector performed UT verifications to the LOP weld repaired procedure after ZPMC QC UT technician Li Li Ming evaluations. The QA inspector found that the weld repair area appeared to be in compliance with the contract documents.

Summary of Conversations:

The QA inspector was informed by Caltrans task Leader Robert Cuellar that in the evaluation of the UT weld repair procedure on the partial joint penetration for the closed rib was being take in consideration the actual thickness of the member.

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
