

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-000430**Date Inspected:** 23-Aug-2007**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:** Xu Lefeng**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:** N/A**Summary of Items Observed:**

The CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the fabrication of the Mock-up 77 meters elevation scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge. ZPMC, welder operator Shen Mei and Xue Yi An were observed by the QA Inspector performing welding operations on the skin panels D and C.

Mr. Xue was observed welding the cover pass at the junction of the MA-5 to mp14 skin panel D following the approved welding procedure specification WPS-B-T-2321-B-P3-S. Base metal was designated as A-709 Grade 50.

ZPMC was using the submerged arc welding (SAW) process in the flat (1G) position with the 4.8 mm diameter electrodes designated as EM12K/AWS A5.17, brand name JW-3. The QA Inspector verified amperage, voltages, preheat and heat interpass temperatures. The QA inspector found that the welding parameters recorded after ZPMC approved Certified Welder Inspector Xu Lefeng appeared to be in accordance with the contract documents.

ABF QA inspector with Bureau of Veritas (BV) Xu Liang Zhang was present during the testing.

Ms. Shen was observed welding filler pass at the junction of the MA-4 to mp12 skin panel C following the approved welding procedure specification WPS-B-T-2321-B-P3-S and welding the root pass at the junction of the MA-4 to mp13 skin panel C following the approved welding procedure specification WPS-B-T-2321-B-P3-S-1. Base metal was designated as A-709 Grade 50. ZPMC was using the submerged arc welding (SAW) process in the flat (1G) position with the 4.8 mm diameter electrodes designated as EM12K/AWS A5.17, brand name JW-3. The QA Inspector verified joint fit-up, amperages, voltages, preheat and heat interpass temperatures. The QA inspector found that the welding parameters reported by Xu Lefeng approved ZPMC Certified Welder Inspector appeared to be in accordance with the contract documents.

The QA inspector witnessed ZPMC magnetic particle testing (MT) on the tack welds at the junction of the plate # MA-4 to mp13 and the root pass at the junction of the plate MA-4 to mp12, skin panel # C. The approved NDT

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MT technician Cai Xin Xin completed the test and Mr. Cai did not find any relevant indications.

The QA inspector performed 10 % MT verification on the root pass on the skin panel # C at the junction of the MA-4 to mp12. See TL-6028 generated on this date.

The photos below show Mr. Cai performing MT verifications to the root pass at the junction of MA-4 to mp12 skin panel C and Ms. Shen setting up to weld on the skin C splice.



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: Cuellar,Robert

QA Reviewer