

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-000110**Date Inspected:** 23-Mar-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 800**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:** Huang Wei**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 at Zhenhua Port Machinery Company (ZPMC) on Changxing Island, Shanghai, China to observe weld procedure qualification (PQR) tests, mechanical testing and welder qualifications for the San Francisco Oakland Bay Bridge (SFOBB) Self-Anchored Suspension Span (SAS). The QA Inspector was present for the PQR HP200748 scheduled for this project. ZPMC, welder operator Zhang Xing Jin was observed by the QA Inspector performing welding operations following the preliminary welding procedure specification PWPS-B-T-2221-F-5 for the PQR identified as HP200748. Base metal was designated as A-709-50F-2(Heat # 7200621N) and appeared to meet the fracture critical impact test requirement. The root opening of the joint was approximately 16 mm. ZPMC followed AWS 5.13 the production procedure WPS using the automatic submerged arc welding (SAW) process in the flat (1G) position with the 4.8 mm diameter JW-3 electrode. The QA Inspector verified amperages, voltages, travel speeds, preheat and heat interpass temperatures. The QA inspectors recorded welding parameters for a total of 16 passes. The QA inspectors observed that the welding parameters taken by ZPMC QA inspector Hu Gang and Huang Wei appeared to be accurate and in accordance with the contract documents. The QA inspector performed final visual inspection to the test coupon after completion. The QA inspector observed that welds appeared to be in general compliance with the contract documents. ZPMC QC (CWI) Huang Wei witnessed the testing and performed visual weld inspection. The PQR HP200748 was completed on this date. The QA inspector assigned the lot # B71-019-07 to this PQR.

Summary of Conversations:

Before ZPMC start the welding operations on the PQR HP200749, The QA inspector questioned ZPMC representative Huang Wei where the QA inspector could find the sticker with the specification/classification/brand

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

for the electrode that ZPMC was going to test. The QA inspector did not observe it on the electrode spool. ZPMC was going to use the H-14 in lieu of the JW-3 electrode. ZPMC inadvertently left the electrode spool EH14 from the last PQR HP200749 testing. ZPMC changed the electrode spools.

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:	McClary,David	QA Reviewer
