

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-000278**Date Inspected:** 07-Jul-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 for the welding qualification testing pertinent for the welding qualification record (PQR) HP2007149 and welding procedure for the PQR HP2007148 scheduled for this project. ZPMC, welder Zhu Hai Ping was observed by the QA Inspector performing welding operations following the preliminary welding procedure specification PWPS-B-T-3213 for the PQR identified as HP2007149. Base metal was designated as A-709 Grade HPS485WT2/Z (Heat # 07101250N). ZPMC followed the Production procedure WPS criteria (AWS 5.13) using the shielded metal arc welding (SMAW) process in the vertical (3G) position with the 4.0 mm diameter designated as E7018-1, brand name THJ506Fe-1. The QA Inspector verified dimensions for the test coupon, amperages, voltages, travel speeds, preheat and heat interpass temperatures. The QA inspector witnessed passes 58 through 66 (layers 21 thru 22). The QA inspectors performed random verifications of the welding parameters for a total of 9 passes. The QA inspectors found that the welding parameters taken by ZPMC Certified Welding Inspector Huang Wei appeared to be accurate and in accordance with the contract documents. PQR HP2007149 was completed welded on this date. The QA inspector performed a final visual inspection and observed that the weld reinforcement appeared to be in compliance with the contract documents. The QA inspector assigned the Caltrans lot # B71-030-07 to this PQR testing.

ZPMC, welder Chen Ru Yang was observed by the QA Inspector performing welding operations following the preliminary welding procedure specification PWPS-B-T-3211 for the PQR identified as HP2007148. Base metal was designated as A-709 Grade HPS485WT2/Z (Heat # 07101250N). ZPMC followed the Production procedure WPS criteria (AWS 5.13) using the shielded metal arc welding (SMAW) process in the flat (1G) position with the 5.0 mm diameter designated as E7018-1, brand name THJ506Fe-1. The QA Inspector verified dimensions for the test coupon, amperages, voltages, travel speeds, preheat and heat interpass temperatures. The QA inspector

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

witnessed passes 45 through 61 (layers 19 thru 23). The QA inspectors performed random verifications of the welding parameters for a total of 17 passes. The QA inspectors found that the welding parameters taken by Quality Control (QC) inspector Xu Bing and ZPMC Certified Welder Inspector Huang Wei appeared to be accurate and in accordance with the contract documents. The PQR HP2007148 testing was still in process at the end of the shift.

Note: ABF representative Kevin Dye was present during the PQR testing on this date.

The QA inspector started reviewing MTRs submitted by ABF on Transmittal # TL-07-0120 for 72 plates that were received on 07/06/07 by Caltrans and intended to be used on the fabrication of the San Francisco Bay Bridge which may be included in one or multiples bid items, bit items are listed as follows: item # 52F (Furnished structural steel Tower), 55F (Furnished structural steel box girder) and 58F (Furnished structural steel bikepath).

Summary of Conversations:

The QA did not have any relevant conversation on this date.

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
