

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-000254**Date Inspected:** 13-Jun-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:** Wei Huang**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:** HP2007154, 247 & 248**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Bruce Berger was present to observe quality control functions related to welding, testing and fabrication procedures at the Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

Caltrans Quality Assurance (QA) Inspector Bruce J. Berger witnessing ZPMC performing flux cored arc welding (FCAW) procedure qualification record (PQR) HP2007247, PWPS-B-T-2234 test. The welder is identified as Mr. Jin Rong, welding pass eight. The test plate material type is identified as A709 Grade 50F-2 and thickness, 26 mm. The PQR complete joint penetration groove weld testing was performed in the overhead (4G) position. The welding consumable is identified as a 1.4 mm wire, classification E71T1-1, specification AWS A5.20. Caltrans QA observed ZPMC QA Inspector, Mr. Wei Huang and two associates monitoring and supervising the testing per AWS 5.13 criteria; amperages, voltages, travel speeds, preheat and inter-pass temperatures. Also present at the test site was American Bridge/Fluor (ABF) quality control (QC) inspector, Mr. Song Wei Min. QA observed that the wind velocity at the ZPMC testing site appear to be in conformance with AWS D1.5, paragraph 4.14.3 requirements. Welding was completed; however the weld needs to be ground to remove excess weld build up on the cover pass.

Caltrans Quality Assurance (QA) Inspector Bruce J. Berger witnessing ZPMC performing flux cored arc welding (FCAW) procedure qualification record (PQR) HP2007154, PWPS-B-T-2231 test. The welder is identified as Mr. Zhan Xian Jin, welding pass six and seven. The test plate material type is identified as A709 Grade 50F-2 and thickness, 30 mm. The PQR complete joint penetration groove weld testing was performed in the vertical up (3G) position. The welding consumable is identified as a 1.4 mm wire, classification E71T1-1, specification AWS A5.

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20. Caltrans QA observed ZPMC QA Inspector, Mr. Wei Huang and two associates monitoring and supervising the testing per AWS 5.13 criteria; amperages, voltages, travel speeds, preheat and inter-pass temperatures. Also present at the test site was American Bridge/Fluor (ABF) quality control (QC) inspector, Mr. Song Wei Min. QA observed that the wind velocity at the ZPMC testing site appear to be in conformance with AWS D1.5, paragraph 4.14.3 requirements. Welding was completed and accepted by QC and QA. QA Lot number B72-046-07 was assigned to this PQR test plate. For details see Welding Witness Report TL-6032 dated June 13, 2007.

Caltrans Quality Assurance (QA) Inspector Bruce J. Berger witnessing ZPMC performing flux cored arc welding (FCAW) procedure qualification record (PQR) HP2007248, PWPS-B-T-2134 test. The welder is identified as Mr. Jin Rong, welding passes one through three. The test plate material type is identified as A709 Grade 50F-2 and thickness, 26 mm. The PQR fillet weld joint testing was performed in the overhead (4F) position. The welding consumable is identified as a 1.4 mm wire, classification E71T1-1, specification AWS A5.20. Caltrans QA observed ZPMC QA Inspector, Mr. Wei Huang and two associates monitoring and supervising the testing per AWS 5.13 criteria; amperages, voltages, travel speeds, preheat and inter-pass temperatures. Also present at the test site was American Bridge/Fluor (ABF) quality control (QC) inspector, Mr. Song Wei Min. QA observed that the wind velocity at the ZPMC testing site appear to be in conformance with AWS D1.5, paragraph 4.14.3 requirements. Welding was completed; however the final visual inspection by QC still needs to be performed prior to QA acceptance of the PQR test plate.

Summary of Conversations:

No relevant conversations took place 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:	Berger, Bruce	Quality Assurance Inspector
Reviewed By:	McClary, David	QA Reviewer
