

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-000890**Date Inspected:** 23-Nov-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:** Changxing Island**CWI Name:** Sha Zhi**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, 89 & 114**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Larry Viars was present to perform observations of Magnetic Particle Testing (MT) and fabricating operations of 89.00 and 114 meter mock-up, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Caltrans QA Inspector Viars observed ZPMC QC Mr. Sha Zhi monitoring welding operations of 89 meter mock-up Skin Plate E sub assembly MA38 weld # 4, 10 and 14. ZPMC certified welder Mr. Li Zhao Qian was observed performing Flux Cored Arc Welding (FCAW) of the above mentioned weld joints. Welding was performed in 1G position and performed in accordance with the following Welding Procedure Specifications, WPS-B-T-2231-TC-U5-F (CJP) and WPS-B-T-2331-TC-P5-F (PJP). The following welding parameters were recorded by The Caltrans QA Inspector, amperage 309, voltage 31.5, travel speed of 316 with a heat input of 1.85 kJ/mm.

Caltrans QA Inspector Viars witnessed ZPMC QC Mr. Zhou Dongyun and Mr. Cai Xin Xin performing MT on # 89.00 Meter Skin Plate C Complete Joint Penetration welds # 9 and 10 root pass. Mr. Cai performed MT on weld # 10 and Mr. Zhou weld # 9. Both welds were found acceptable by ZPMC QC.

Caltrans QA Inspector Viars observed ZPMC personnel attempting to perform heat straightening with the use of a 3 ton block 1 meter by .5 meter in addition to oxygen acetylene on 114 Meter Mock-up Skin D lower. When asked for the Heat Straightening Record (HSR) the ZPMC QC Mr. Li Xiu Yang provided HSR1(CT)-145. The HSR provided did not reference use of the weight. ZPMC personnel removed the weight proceeded with heat straightening. Please see the attached photo of weight placed on 114 D Lower.

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Caltrans QA Inspector Viars observed that the above mentioned welding and performed MT on 89.00 Meter Skin plate C. Welding and testing appeared to be conformance with AWS D1.5 requirements. See MT report TL6038 on this date for further information.



Summary of Conversations:

As identified within the contents of this report.

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:	Viars,Larry	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
