

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-001769**Date Inspected:** 12-Mar-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1830**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Huang Li**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:** Tower Subassembly**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Mike Hasler was present to observe the fitup, welding and related activities associated with the fabricating of Caltrans Mock-up, 77M, 89M, 114M, orthotropic box girders (OBG) and Tower, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Bay 4: The Caltrans QA Inspector observed ZPMC performing heat straightening operations on diaphragm plates identified as 43M Top P1297 (E), HSR1 (T) 0119, revision (0). ZPMC was observed heating the plate manually with a rose-bud torch. Caltrans QA observed Bureau Veritas Quality Control (QC) inspector, Mr. Huang Li monitoring the heat straightening of the plate using a calibrated infra-red temperature indicating device to monitor the heat.

Bay 7: Caltrans QA Inspector observed submerged arc welding (SAW), complete joint penetration (CJP) plate splice weld on subassembly identified as tower diaphragm plate SSD1-SA27 A/B-1B. The welder is identified as Mr. Jiang Jing Tong, welder stamp 046830. The welder is using welding procedure specification WPS-B-T-3221-B-U3c-S-1. Caltrans QA observed Bureau Veritas (BV) CWI inspector, Mr. Li Gang monitoring welding activities at the workstation. Caltrans QA Inspector measured current welding parameters at approximately 625 amps, 31.0 volts and 500mm/min (millimeters per minute) travel speed. Preheat and interpass temperatures were verified during welding activities. The preheat temperature prior to the start of welding measures more than 180 Celsius but less than 230 Celsius during maximum interpass temperature verification. Caltrans QA verified the welding consumables for the SAW welding LA85 (Filler Metal Brand), diameter 4.8mm, classification ENi5 and flux MIL800-HPNi.

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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:	Hasler, Mike	Quality Assurance Inspector
Reviewed By:	Cuellar, Robert	QA Reviewer
