

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-000997**Date Inspected:** 27-Nov-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 600**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Zhu Zhong Hai**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:** CalTrans mock up**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Dan Hernandez was present to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Item Description	WBS	Dwg No.	Status
1 89M Skin Plate E			In progress
Caltrans QA Inspector observed flux cored arc welding (FCAW) in progress of longitudinal stiffener plate mp502-1, mp543-1 to skin plate E. The weld joints are Complete Joint Penetration (CJP), double bevel T-joints. The welder was observed welding filler passes in the 1G position using a chipping hammer and wire brushing during interpass weld cleaning. The approved welder is identified as Mr. Li Shu Qiang # 053609 using welding procedure specification WPS-B-T-2231-TC-U5-F. Caltrans QA measured current welding parameters at approximately 301 amps, 31.6 volts and 284 millimeters per minute (mm/min). Preheat and interpass temperatures were verified during welding activities and were within approved WPS minimum and maximum range. FCAW welding consumable is verified and identified as Supercored 71H, classification E71T-1, diameter 1.4 mm (.055 inches).			
2 77m diaphragm SA104			In Progress
Caltrans QA Inspector observed SMAW in progress of diaphragm web plates at SA104 weld access holes, during initial welding, weld termination at weld access hole was not welded to the full length of the diaphragm web plate due to restricted access not allowing for a run off tab. The weld joint is a Partial Joint Penetration (PJP) double bevel T-joint in the 2G position. The approved welder Yang Lei # 040690 was using approved welding procedure specification WPS-485-SMAW-2G (2F)-Repair. Caltrans QA Inspector observed welding parameters at approximately 180 amps and 25 volts. Preheat temperatures were verified during welding activities and were within approved WPS minimum and maximum range. SMAW welding consumable is verified and identified as classification E9018 Excalibur HR4, 4.0mm			

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diameter. An electrode oven was observed by Caltrans QA Inspector in use during the welding process. ZPMC Quality Control (QC) Certified Welding Inspector (CWI) Mr. Zhu Zhong Hai was observed monitoring welding activities at the workstation.

Summary of Conversations:

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:	Hernandez,Dan	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
