

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-000038**Date Inspected:** 07-Dec-2006**Project Name:** SAS Superstructure**OSM Arrival Time:** 800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**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:**

Office of Structural Materials Quality Assurance Inspector (QA), David McClary observed quality control functions related to procedure qualification (PQR) testing at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

Item	Description	WBS	Dwg No.	Status
1	1G FCAW Internal Trial - 1			Lack of Fusion
	The QA inspector observed macro-etch samples of ZPMC's internal 1G (flat) Flux Core Arc Welding (FCAW) trials conducted yesterday evening. The majority of the sample exhibit lack of fusion / slag inclusion at the root, with one sample also having an interpass inclusion. See conversations.			



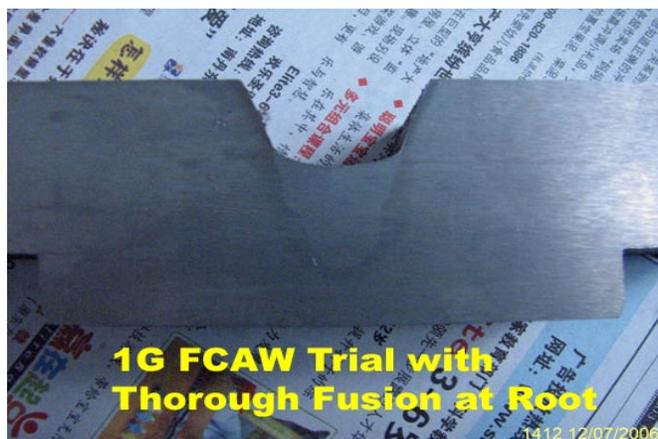
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2 1G FCAW Internal Trial - 3

Thorough Fusion

ZPMC continued to conduct internal 1G FCAW trials in an attempt to eliminate the lack of fusion problems being encountered in the PQR testing. ZPMC is changing electrode stick-out, angle, position and progression. The macro samples from the trials conducted today appear to have thorough fusion, and ZPMC intends to begin procedure qualification tomorrow.



Summary of Conversations:

ABF Quality Control Manager (QCM) Jim Bowers spoke with ZPMC Quality Control (QC) Manager Lu Jian Hua and suggested they continue internal trials. Mr. Bowers inquired about the weld progression and was informed they were pushing the wire. Mr. Bowers suggested they should probably lower the angle of the nozzle and change the direction of progression to drag the wire.

ZPMC Quality Control (QC) Mr. Lu Jian Hua informed the QA Inspector that they would cancel the PQR today due to the heavy fog changing the ferry schedule.

A meeting was conducted on the island between ZPMC, ABF and Caltrans to discuss Tower Fabrication Procedures and Mock-up requirements. Attending the meeting by Caltrans were representatives: Jim Merrill, Mazen Wahbeh, Venkatesh Iyer, Patrick Lowry and Keith Devonport.

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: McClary,David

Quality Assurance Inspector

Reviewed By: Lowry,Patrick

QA Reviewer