

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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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-000066**Date Inspected:** 12-Jan-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1700**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:** Bid 52, 55 Tower and Girder**Summary of Items Observed:**

Office of Structural Materials Quality Assurance Inspector (QA), Mark Wright was present as requested to observe quality control functions related to procedure qualification record (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
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1

The QA Inspector observed the continuation welding of a Procedure Qualification (PQR) test plate identified as HP-2006137. The HP2006137 test was conducted on A709-50-2 steel, 26mm thick, using Submerged Arc Welding (SAW) 2mm diameter electrode in the 1G (flat) position with a root opening of 10mm to AWS D1.5, Section 5.12 (maximum heat input) with a steel backing. The QA Inspector observed ZPMC Quality Control (QC) recording the essential variable (amps, volts, travel speed) for each pass and randomly verified the parameters using an Amprobe® amperage / voltage meter and a stopwatch. The QA Inspector issued lot number B41-009-07. The welding appeared to comply with the contract documents. Photo below.

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2

See TL-6032's for details of this test.

The QA Inspector also observed the start of a fillet weld soundness test using the above mentioned PQR parameters and wire. The QA Inspector observed that the volts were changing during the first pass. After further observations the QA observed that the wire stick-out was different than when the Amperage and Voltage was set. The QC also noticed this and tried to explain it to the welding crew when an argument started and the QC (only Certified Welding Inspector (CWI) on site) got up and left the area. The QA Inspector reminded the welding crew that without the CWI Caltrans QA would not be witnessing this test. The ZPMC QA stated that we would complete this test tomorrow.

## Summary of Conversations:

See Task Leader journal for 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.

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<b>Inspected By:</b>	Wright,Mark	Quality Assurance Inspector
<b>Reviewed By:</b>	McClary,David	QA Reviewer

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