

**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-002349**Date Inspected:** 26-Apr-2008**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:** Shanghai, China**CWI Name:** Fu Yu Hong**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 and Tower**Summary of Items Observed:**

CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the fabrication scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

The QA inspector observed ZPMC performing welding operations at the side plate SP753-001 joint # 037 thru 042 after completing welding operations with flux cored arc welding with the gantry machine in bay # 3. The QA inspector observed ZPMC removing weld porosity by grinding. The QA inspector observed that ZPMC was excavating the base metal of the side plate with grinding disc. See digital photograph below. The QA Inspector had a conversation with ZPMC and ABF representatives Mr. Lu Xianying, Mr. Wu Ming Kai and Kevin Dye. The QA inspector informed ZPMC and ABF representatives that ZPMC was grinding into the base metal excavating approximately 3 mm and then producing unnecessary base metal weld repair in several locations. ZPMC and ABF representative agreed and Mr. Kevin Dye informed to the QA inspector that he was going to write an internal incident report addressing this condition. The QA inspector informed Task Leader Craig Hager about ZPMC to perform to repair porosity on the weld.

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Item	Description	WBS	Dwg No.	Status
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1	<p>ZPMC Heat Straightening HSR-(1) 583</p> <p>The QA inspector observed ZPMC in Bay # 8 performing heat straightening operations at the diaphragm from the 38 meters elevations at the Top diaphragm plate 196N for lift 1 using the HRS1(T)583. ZPMC located a 13 ton active load applied to one end of the diaphragm plate with the opposite side being elevated. Digital pictures of this heat straightening method were sent to the SMR for review.</p>			
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2	ZPMC MT verifications			
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The QA inspector observed QC inspector Wang Wei performing magnetic particle testing (MT) at the junction of floor beam to stiffeners FB-013-007 weld joint 002 without using a flash light on the shadow. See photograph below. The QA inspector had a conversation of Mr. Wang Wei the QA inspector recommended to use a flash light. ZPMC QC inspector informed that he uses the flash light when he needs. However he was going to start helping his weld visual examination with the flash light.



### Summary of Conversations:

As noted above.

### 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>	Acuna,Alfredo	Quality Assurance Inspector
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<b>Reviewed By:</b>	Cuellar,Robert	QA Reviewer
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