

**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-001806**Date Inspected:** 25-Mar-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 600**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1800**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sun Wei and Chen Chih-Ming**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 deck panels and side panels**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

**OBG bay 1**

QA visually inspected completed welds on deck panel DP-432-001. All welds that were inspected appeared to exhibit some degree of lack of fusion, overlap, oversize and/or under fill. QA was unable to complete the visual inspection of this deck panel by shifts end.

QA observed ZPMC QC personnel perform Magnetic Particle Testing (MT) on one weld joining diaphragm to U-rib #103. This weld and the MT results appeared to be in compliance with the contract documents.

**OBG new assembly bay**

QA observed ZPMC welding personnel perform Submerged Arc Weld (SAW) on the first side of side panel SEG-013A-006. Quality Control (QC) CWI identified as Chen Chih-Ming was observed verifying the welding parameters for this weld. They appeared to be in compliance with the posted WPS.

Volts: 30.5 Amps: 507 Travel Speed: 450mmpm

QA randomly inspected root openings on side panels SEG-015A-004 and SEG-015A-002 prior to welding.

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# WELDING INSPECTION REPORT

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They did not appear to comply with the posted WPS which specifies a 6mm root with no +/--tolerance. The “as fit” root openings on both panels varied from 6mm to 10mm. (see attached picture) QA notified ZPMC QC CWI identified as Chen Chih-Ming and American Bridge/Fluor (ABF) inspectors of this condition immediately. QA observed Mr. Craig Knops with ABF and ZPMC QC personnel discussing the issue of the excessive root openings. Mr. Knops recommended that ZPMC pull the panels apart and butter (build up with weld) one edge of one of the panels and grind the buttered areas to bright metal and re-fit the panels. ZPMC stopped work on these two panels and are currently considering Mr. Knops’ recommendation. At the end of this shift QA was unclear as to what ZPMC will propose to do concerning this matter.



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