

**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-005172**Date Inspected:** 10-Jan-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Shen Fuyou**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:****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 assembly bay 19**

QA observed that ZPMC welding personnel appear to have completed the welding on 22 cross bracing components identified on the material as CB5-FB209A-xxx. QA noted that ZPMC Quality Control (QC) has not yet performed Visual Testing (VT) on these items.

QA noted that cross brace components identified on the material as CB3-SP226A-1 and CB3-SP225A-1 have not yet been green tagged by ABF at this time.

No other activities were observed in this bay at the time QA was present.

**OBG outside assembly**

QA observed that ZPMC welding personnel have performed repair excavations on 5 Complete Joint Penetration (CJP) welds on OBG segment identified on the material as 3AW. QA observed that these 5 welds were on SPCM material and ZPMC QC was only able to produce 2 Critical Weld Repair (CWR) procedures for welds identified on the material as SEG013A-016 and SEG013A-024. QA noted that on page 2 item 3 of CWR report #'s B-CWR242 and B-CWR243 that the weld excavations shall not exceed 1/2 the thickness of the material being

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repaired. QA observed that ZPMC personnel have exceeded this depth. The material thickness is 15mm and the excavations appear to 50% of the material thickness. See attached pictures for details. QA also noted that the welders performing the gouging have cut into the web of the SPCM floor beams as deep as 10mm in a 20mm web plate. This exceeds the excavation of base metal limits of 30% of material thickness as specified in ASTM A6. QA also observed that three other SPCM welds identified on the material as SEG013A-009, SEG013A-010 and SEG013A-026 have been excavated for repair without an approved repair procedure. The excavations exceed 65% of the material thickness which makes them Critical Weld Repairs according to AWS D1.5 2002 paragraph 12.17.2 (4). QA notified ZPMC lead CWI identified as Mr. Zhang Bao Lei and ABF QA inspector identified as Mr. Li Hao that an incident report would be issued for each of the above mentioned non-conformances.

### Summary of Conversations:

As mentioned 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 Eric Tsang, 15000422372, 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>	Carreon,Albert	QA Reviewer
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