

**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-000555**Date Inspected:** 28-Sep-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 1300**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2330**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Bing Xu and Xu Lefeng**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:** 114 Meter Mock-Up**Summary of Items Observed:**

This Quality Assurance Inspector witnessed ultrasonic testing by ZPMC personnel on the 114 Meter Mock-Up, Face E Skin Plate, MA-108, weld joints 1 and 2 from the A and B sides of the weld joints. Ultrasonic testing was also carried 114 Meter Mock-Up, Face E Skin Plate MA-109, weld joints 3 and 8 from the A and B sides of the weld joints. Each complete joint penetration weld was approximately 500 millimeters in length. Weld joint 1 was accepted by ZPMC UT Technicians. Weld joint 2 was rejected having a cumulative length of defects 25 millimeters in length on a 500 millimeter long weld. Weld joint 3 was rejected with a cumulative length of defects 507 millimeters in length in a 500 millimeter long weld. The 507 millimeter long indication either extends into the partial penetration weld which begins at the end of the complete joint penetration weld or the complete penetration weld is a few millimeters longer than shown on the drawings. Weld joint 8 was rejected with a cumulative length of defects being 160 millimeters in length in a 500 millimeter long weld. The ZPMC ultrasonic testing technicians were Li Li Ming and E Shin Qin.

This Quality Assurance Inspector witnessed repair welding of the 114 Meter Mock-Up, Face A Skin Plate, MA-107 T-Joint number 3 in the 2G position. The ZPMC welder was Chang Chuancang, welder identification 053870. Welding procedure being used was WPS-345-FCAW-2G(2F) Repair and the amperage was checked and found to be 307, the voltage 30 and the pre-heat and inter-pass temperature 136 degrees C.

This Quality Assurance Inspector witnessed welding of the root welds for the complete joint penetration welds for the longitudinal stiffeners on the 114 Meter Mock-Up, MUSC MA-110-1. The ZPMC welder was Bai Wenming, welder identification 040434 who was using welding procedure WPS-B-T-2232-TC-U5-F with his amperage checked and found to be 306, voltage 31, travel speed 300 millimeters per minute and inter-pass temperature 141

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# WELDING INSPECTION REPORT

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degrees C.

**Summary of Conversations:**

No significant conversations held today.

**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>	Berger, Bruce	Quality Assurance Inspector
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<b>Reviewed By:</b>	Cochran, Jim	QA Reviewer
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