

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-000535**Date Inspected:** 26-Sep-2007**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:** Xu Bing & Gu Xinzhai**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:** Mock Up**Summary of Items Observed:**

Elevation 77:

The QA Inspector randomly observed ZPMC Non Destructive Testing (NDT) Technician Zhou Dongyun, utilizing the Magnetic Particle Testing Method (MT) to examine 2 excavations on the outside of Complete Joint Penetration (CJP) Weld Joint (WJ) number 5, and 5 excavations on the outside of WJ number 4 attaching longitudinal stiffeners piece marks MP6 and MP5-2 respectively to Sub-Assembly (SA) MUSA-MA1 Face E (Skin Plate E), prior to performing second time weld repairs. The QA Inspector also performed a random MT verification of the same excavations. There appeared to be no indications.

The QA Inspector randomly observed ZPMC qualified welders Zhai Qingshan and Yang Lei utilizing the Shielded Metal Arc Welding (SMAW) process, to weld 3 excavations on the outside of CJP WJ number 2 and 1 excavation on the inside of WJ number 4 attaching longitudinal stiffeners piece marks MP2-3 and MP2-1 respectively, to SA MUSA-MA2 Face A (Skin Plate A), for second time weld repairs. Mr. Zhai and Mr. Yang were utilizing ZPMC weld procedure specification WPS-345-SMAW-1G(1F)-Repair. The QA Inspector observed ZPMC CWI Gu Xinzhai monitoring weld parameters. The QA Inspector also performed random verification of the weld parameters and documented them as follows: welding amperage 225 amps, welding voltage 26.7 volts with a travel speed of 189 millimeters per minute for Mr. Zhai and 225 amps, 26.8 volts with a travel speed of 190 millimeters per minute for Mr. Yang. Weld parameters appeared to comply with the above approved ZPMC WPS. The following photograph provides additional detail.

Elevation 114:

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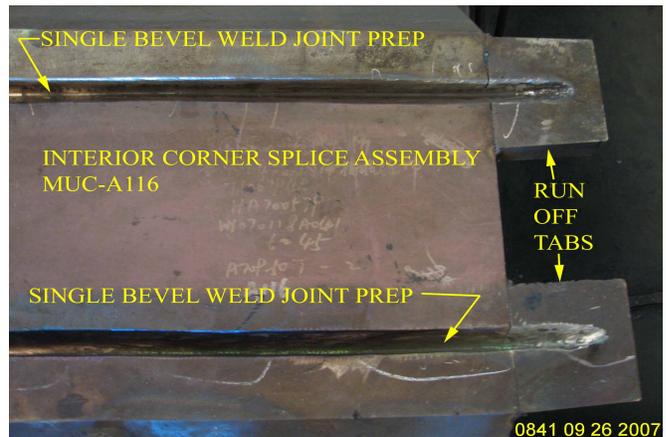
The QA Inspector observed a ZPMC helper blending welds attaching longitudinal stiffeners piece marks MP1010 and MP1013 to SA MUSC-MA108 Face E (Skin Plate E).

The QA Inspector observed a ZPMC helper blending welds attaching longitudinal stiffeners piece marks MP1004-1, MP1004-2 & MP1004-3 and MP1007 to SA MUSC-MA113 Face D (Skin Plate D).

The QA Inspector observed a ZPMC helper removing run off tabs from the ends of the welds attaching longitudinal stiffeners piece marks MP1010 and MP1013 to SA MUSC-MA109 Face E (Skin Plate E). The following photograph provides additional detail.

The QA Inspector observed ZPMC qualified welders Gou Dengyun and Chen Ru Yang utilizing the Shielded Metal Arc Welding (SMAW) process, to attach lifting lugs to SA MUSC-MA110 Face D (Skin Plate D). Mr. Guo and Mr. Chen were utilizing ZPMC weld procedure specification WPS-B-P-2112 with 4 millimeter diameter welding rod. The QA Inspector observed ZPMC CWI Xu Bing monitoring weld parameters. The QA Inspector also performed random verification of the weld parameters and documented them as follows: welding amperage 230 amps, welding voltage 23 volts for Mr. Guo and 225 amps, 26 volts for Mr. Chen. Weld parameters appeared to comply with the above approved ZPMC WPS. The following photograph provides additional detail.

The QA Inspector observed ZPMC welding personnel preparing the bevels for welding on Interior Corner Splice Assembly MUC-A116. The following photograph provides additional detail.



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Summary of Conversations:

There were no relevant conversations.

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.

Inspected By:	Franco,Charlie	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer
