

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-000553**Date Inspected:** 24-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:** Ye Yongjun**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 114:

Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding being performed for the fabrication of the Mock Up at elevation 114. The QA Inspector randomly observed ZPMC qualified welder Chen Ruyang utilizing the Flux Cored Arc Welding process to weld longitudinal stiffener MP1013 to Sub-Assembly (SA) MUSC-MA 109 Face E (Skin Plate E) on the Partial Joint Penetration (PJP) Weld Joint (WJ) Number 1 and Number 2. Mr. Chen was utilizing ZPMC WPS-B-T-2332-TC-P5-F-1. The QA Inspector observed ZPMC CWI Ye Yongjun monitoring weld parameters. The QA Inspector also performed random verification of the weld parameters and documented them as follows: welding amperage 297 amps, welding voltage 31.3 volts with a travel speed of 300 millimeters per minute. Weld parameters appeared to comply with the above approved ZPMC WPS.

The QA Inspector observed a ZPMC helper blending welds attaching longitudinal stiffeners to SA MUSC-MA107 Face A (Skin Plate A).

The QA Inspector randomly observed ZPMC Non Destructive Testing Technician Cai Xin Xin, utilizing the Magnetic Particle Testing Method (MT) to examine 1 excavation each in the Complete Joint Penetration (CJP) WJ's numbers 4 and 5, and 2 excavations in WJ number 7 attaching longitudinal stiffeners piece marks MP1001, MP1002-1 and MP1002-1 respectively to SA MUSC-MA106 Face A (Skin Plate A), prior to performing first time weld repairs. There appeared to be no indications.

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

The QA Inspector randomly observed ZPMC Non Destructive Testing Technician Cai Xin Xin, utilizing the Magnetic Particle Testing Method (MT) to examine 1 excavation each in the CJP WJ's numbers 10 and 13 attaching longitudinal stiffeners piece marks MP1003-1 and MP1003-2 to SA MUSC-MA112 Face C (Skin Plate C), prior to performing first time weld repairs. There appeared to be no indications. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC NDT Technician Cai Xin Xin, utilizing MT to examine 100 percent of the root passes on Partial Joint Penetration (PJP) WJ number 12 and WJ number 13 attaching longitudinal stiffener piece mark MP1007 to SA MUSC-MA113 Face D (Skin Plate D). The QA Inspector performed random MT examination of the same root passes. There appeared to be no indications.



Summary of Conversations:

The QA Inspector asked ZPMC QA Representative Shen Xue Jun if he knew what the total length was of the defects found in WJ's 10 and 13, attaching longitudinal stiffeners piece marks MP1003-1 and MP1003-2 to SA MUSC-MA112 Face C (Skin Plate C). Mr. Shen informed the QA Inspector that he did not. The QA Inspector then asked Mr. Shen if he could get a copy of the Ultrasonic Testing Report, and Mr. Shen informed the QA Inspector that he would do so.

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
