

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-001479**Date Inspected:** 31-Jan-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**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:** 89 Meter Mockup/OBG**Summary of Items Observed:**

Caltrans Quality Assurance Inspector Gabriel Quintana (QA Inspector) arrived at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China to observe fabrication and Quality Control Inspectors (QC Inspectors) perform their duties and responsibilities as specified in the contract documents, approved plans, fabrications documents and Special Provisions for this project. While on site the QA Inspector observed the following:

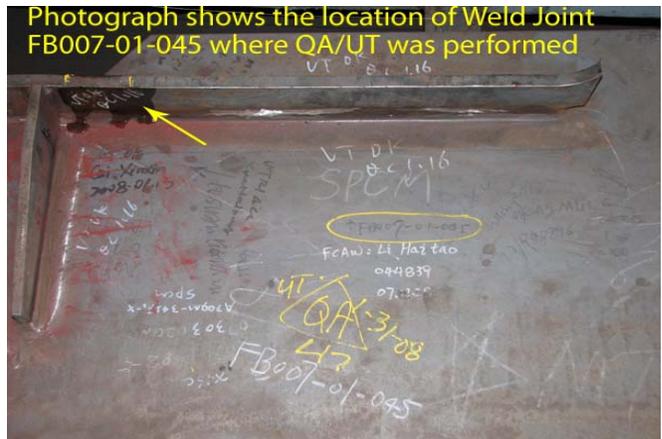
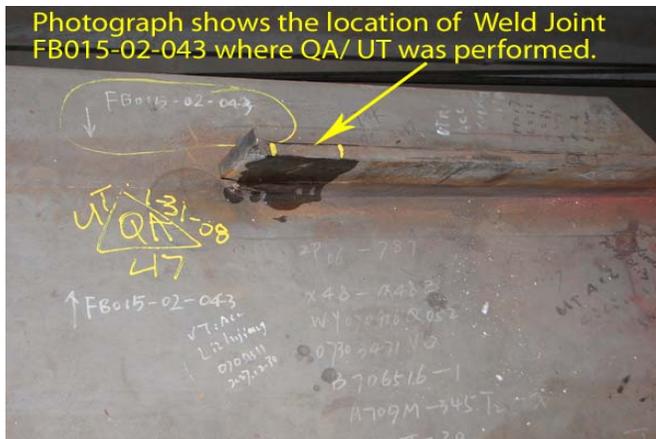
Tower Shop- QA Inspector randomly observed ZPMC qualified welder Yang Gencheng ID #066418 groove welding fill passes on 89 Meter Mockup MUB-MA21 A/J Weld Map 64. Welding in progress was observed in the 2G position utilizing the Shielded Metal Arc Welding (SMAW) process per the approved Welding Procedure Specification (WPS) number WPS-B-T-3212-B-U2a-2. QA Inspector Brannon observed the ZPMC QC Inspector Ye Yongjun verifying that the welding parameters and pre-heat were in accordance with the approved WPS. QA Inspector observed QC Inspector monitor preheat and interpass temperature to be a minimum of 180° Celsius and not greater than 230° Celsius. QA Inspector observed that welding parameters are verified by the QC Inspector to be within the parameters of the WPS. The QA Inspector also randomly monitored weld parameters and recorded them as follows: welding amperage 170 amps, welding voltage 22 volts. The weld parameters appeared to comply with contract requirements and the approved WPS.

Bay 7- QA Inspector performed ultrasonic verification testing of Floor Beam Sub Assembly complete joint penetration welds on the following weld joints: FB001-01-045, FB001-02-045, FB015-04-043, FB002-01-043, FB007-01-045, FB015-02-043, FB007-05-045 and FB001-04-045. The Ultrasonic Testing (UT) was performed to verify that 10% of the welds meet the requirements of the contract documents and AWS D1.5-2002. The weld and

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base metal were scanned utilizing a Krautkramer Branson USN 60. QA Inspector performed a base metal lamination check using a 25mm diameter 2.25 MHz transducer and a shear wave scan was using a 20mm x 15mm 2.25 MHz transducer on a 70 degree angle wedge from face A. QA Inspector utilized Scanning patterns A, B, C, and E. For details please see the ultrasonic testing report TL-6027 dated January 31, 2008. QA Inspector found the welds inspected to be in compliance with AWS D1.5- 2002 Table 6.3 and the contract documents.



Summary of Conversations:

General communications took place between the QA and QC Inspector.

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: Quintana, Gabriel

Quality Assurance Inspector

Reviewed By: Cochran, Jim

QA Reviewer