

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-007370**Date Inspected:** 03-Jun-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**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:** OBG Fabrication**Summary of Items Observed:**

CWI Inspector: Mr. Li Yanhua

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following:

Tower Bay 14

The QA Inspector observed ZPMC welder Ms. Wang Lanying, stencil 045265 using submerged arc welding procedure specification WPS-B-T-2221-C-L2C-S-2 to make groove weld SEG055A-004. The QA Inspector observed Quality Control personnel monitoring the base material temperature and other welding attributes. This QA Inspector measured a welding current of 560 amps, 32.0 volts and a welding travel speed of 490 mm per minute. Items observed on this date appeared to generally comply with applicable contract documents.

The QA Inspector observed ZPMC welder Ms. Wang Lanying, stencil 045265 using submerged arc welding procedure specification WPS-B-T-2221-C-L2C-S-2 to make groove weld SEG060-006. The QA Inspector observed Quality Control personnel monitoring the base material temperature and other welding attributes. This QA Inspector measured a welding current of 700 amps 34.0 volts and a welding travel speed of 490 mm per minute. Items observed on this date appeared to generally comply with applicable contract documents.

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The QA Inspector observed ZPMC welder stencil 070212 is using flux cored welding procedure WPS-B-T-2233-B-U2-F to make weld SSD19-PP66-135 between OBG floor beam FB016-022 and FB013-028. The QA Inspector observed a welding current of approximately 190 amps, 23.9 volts and QC personnel were monitoring this welding. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Bay 9

ZPMC issued an "Inspection Notification Sheet" #3311 requesting QA to perform ultrasonic inspections of bolt hole repair welds on the following traveler rail brackets: TR6C-PP16, TR6C-PP20, TR6C-PP26, TR6C-PP28, TR5D-PP27 and TR5D-PP21 and TR5D-PP15. ZPMC ultrasonic Inspectors had previously accepted all of these welds. This QA Inspector performed random ultrasonic inspections of the weld and the QA Inspector observed that one bolt hole weld repair in traveler rail bracket TR5D-PP27 and one bolt hole weld repair in traveler rail bracket TR5D-PP15 have class "A" ultrasonic rejections. The other traveler rail brackets appear to comply with AWS D1.5 UT requirements. The QA Inspector issued an incident report to document these ultrasonic rejections and the photographs below. For additional information on these inspections see the TL6027 Ultrasonic Test Report and the photograph below for additional information.



Summary of Conversations:

See 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 phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
