

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-008816**Date Inspected:** 30-Aug-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1845**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 715**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 Inspectors: Mr. Shen Fu You, Mr. Lv Li Qing

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. This QA Inspector observed the following:

OBG Bay 3

ZPMC issued "Inspection Notification Sheet" number 4110 informing QA that ZPMC has completed ultrasonic inspections of OBG cross beam weld: CB202F-014-001. This QA Inspector observed ZPMC QC personnel had previously marked this weld as being ultrasonically accepted. This QA Inspector performed ultrasonic inspections of approximately 10 percent length of weld CB202F-014-001 and items observed by this QA Inspector appear to comply with AWS D1.5 UT requirements. For additional information on this inspections see the TL6027 Ultrasonic Test Report.

OBG Bay 7

This QA Inspector observed ZPMC welder Mr. Liu Shouhai, stencil 049769 is using shielded metal arc procedure WPS-B-T-2112 to make shear link weld WDI-A305-77M2-50. This QA Inspector measured a welding current of approximately 230 amps. This QA Inspector confirmed that Mr. Liu Shouhai is certified to make this weld. It

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appears that ZPMC personnel had used torches to preheat the base material prior to commencement of the welding.

This QA Inspector observed the shielded metal arc welding electrodes are being stored in an electrically heated electrode storage container which is warm to the touch and it appears to be connected to the welding power supply cable. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC QC personnel have completed an inspection data sheet which lists ZPMC welder Mr. Wei Jun, stencil 067707 as having previously used shielded metal arc procedure WPS-B-T-2112 to make shear link weld WDI-A305-77M2-10. This QA Inspector observed ZPMC QC Inspection personnel have recorded a welding current of 225 amps. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Bay 13

This QA Inspector observed ZPMC QC has recorded welder Mr. Bian Henggui, stencil 051359 had used the flux cored process welding procedure WPS-B-P-2113-TC-U4b-FCM-1 to make OBG corner assembly weld CA571-004. This QA Inspector observed a welding current of approximately 310 amps, 32.0 volts and Mr. Bian Henggui is certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Xu Liguang, stencil 200114 is using shielded metal arc process WPS-B-P-2114-FCM-1 to make groove weld repair SEG48F-022. The QA Inspector measured a welding current of 140 amps. ZPMC QC showed this QA Inspector this weld is being completed in accordance with weld repair document BWR7020 which appears to have been approved by Caltrans Engineering. This QA Inspector observed Mr. Xu Liguang is certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Bay 14

This QA Inspector observed ZPMC QC has recorded welder Ms. He Junrong, stencil 201215, stencil 201215 has used the flux cored welding procedure WPS-B-T-2231-TC-U4b-F to make OBG corner assembly weld CA67A-004. This QA Inspector observed a welding current of approximately 140 amps and Ms. He Junrong is certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

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

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Reviewed By: Carreon,Albert

QA Reviewer