

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-016316**Date Inspected:** 15-Aug-2010**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**Summary of Items Observed:**

CWI Inspector: Mr. Liu Hua Jie

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 Segment Trial Assembly

ZPMC issued "Inspection Notification Sheet" number 06407 informing Caltrans QA that ZPMC is requesting ultrasonic inspections (UT) of the complete joint penetration splice welds on OBG side plate "I" and "T" stiffener splice welds between OBG segments 9BW and 9CW in support of "Tagging in Process". This QA Inspector performed random visual and ultrasonic inspections of the following welds: SP670-001-057, SP492-002-055, SP492-002-056, SP770-002-002, SP770-002-008, BP152-001-030, BP152-001-028. Items observed by this QA Inspector appear to comply with AWS D1.5 UT requirements. For additional information on these inspections see the TL6027 Ultrasonic Test Report.

This QA Inspector observed ZPMC welder Mr. Jiang Yang Sheng, stencil 045240 used flux cored welding procedure WPS-345-FCAW-1G(1F)-FCM-Repair to add buttering welds to OBG segment 9AW longitudinal diaphragm. This longitudinal diaphragm had been removed due to being misaligned, reference weld repair document WR1722. This QA Inspector measured a welding current of approximately 240 amps and 28 volts. This

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QA Inspector observed that Mr. Jiang Yang Sheng appeared to be certified to make this weld and the base material was preheated with a torch prior to welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhang Qiu Jun stencil 057333 used shielded metal arc welding procedure specification WPS-B-P-2214-B-U2-FCM-1 to complete weld OBW10-001. This weld was located on the cross beam side edge plate between OBG segments 10AW and 10BW. This QA Inspector observed a welding current of approximately 150 amps, Mr. Zhang Qiu Jun appeared to be certified to make this weld and the base materials appeared to have been preheated with electric heaters. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Xu Nai Jun stencil 044551 used shielded metal arc welding procedure specification WPS-B-P-2214-B-U2-FCM-1 to complete weld OBW10-001. This weld was located on the counterweight side edge plate between OBG segments 10AW and 10BW. This QA Inspector observed a welding current of approximately 170 amps, Mr. Xu Nai Jun appeared to be certified to make this weld and the base materials appeared to have been preheated with electric heaters. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Jin Yinghuang, stencil 040704 used flux cored welding procedure WPS-B-T-2232-TC-U4b-F to make weld SEG055B-041. This weld joins OBG segment 9EW counterweight side longitudinal diaphragm to the floor beam at panel point PP082. This QA Inspector observed ZPMC QC had recorded a welding current of 305 amps, 30.0 volts and Mr. Jin Yinghuang appeared to be 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. Zhu Ming Jun, stencil 040609 used flux cored welding procedure WPS-B-T-2232-TC-U4b-F to make weld SEG057B-022. This weld joins OBG segment 9EW cross beam side longitudinal diaphragm to the floor beam at panel point PP085. This QA Inspector observed ZPMC QC had recorded a welding current of 305 amps, 30.0 volts and Mr. Zhu Ming Jun appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents. See the photograph below for additional information.

This QA Inspector observed ZPMC welder Mr. Wu Jun stencil 053486 used flux cored welding procedure WPS-B-T-2232-TC-U4B-F to make weld OBW10L-004. This weld attaches a counterweight mounting plate to the edge plate at OBG segment 10AW. This QA Inspector observed ZPMC CWI Liu Hua Jie has recorded a welding current of 312 amps and 30.7 volts. Mr. Xin Meng appeared to be certified to make this weld and the base material appeared to have been heated with electric heaters. Items observed on this date appeared to generally comply with applicable contract documents.

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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
