

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-022735**Date Inspected:** 19-Apr-2011**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. Cui Zheng Hua, Mr. Wang Jun

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 14

This QA Inspector observed ZPMC welder Mr. Yang Yunfeng, stencil 215553 used shielded metal arc welding procedure WPS-345-SMAW-4G(4F)-FCM-Repair -1 to make critical weld repairs to OBG segment 14E weld SEG3019C-008. ZPMC QC informed this QA Inspector that weld repair document B-CWR-2924 documents this welds had been ultrasonically rejected. This QA Inspector observed a welding current of approximately 175 amperes (amps), the base materials were preheated and post weld heat treated with an electrical heater and Mr. Yang Yunfeng 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. Wang Zhengbin, stencil 216086 used shielded metal arc welding procedure WPS-345-SMAW-4G(4F)-FCM-Repair -1 to make critical weld repairs to OBG segment 14E weld SEG3019C-008. ZPMC QC informed this QA Inspector that weld repair document B-CWR-2924 documents this

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

welds had been ultrasonically rejected. This QA Inspector observed a welding current of approximately 180 amps, the base materials were preheated and post weld heat treated with an electrical heater and Mr. Wang Zhengbin 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 Ms. Duan Ziuzhi, stencil 050502 used submerged arc welding procedure specification WPS-B-T-2221-B-L2C-S-2 to complete OBG segment 14E groove weld SEG3019*-001. This QA Inspector measured a welding current of approximately 550 amps, 30 volts and Ms. Duan Ziuzhi appeared to be certified to make this weld. This QA Inspector observed the base materials had been preheated with electric heaters prior to welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Li, stencil 044772 used shielded metal arc welding procedure specification WPS-345-SMAW-4G(4F)-FCM-Repair-1 to make repairs to OBG segment 14E welds SEG3019X-004 and 006. ZPMC QC informed this QA Inspector that weld repair document B-WR-20361 documents these welds had been ultrasonically rejected. This QA Inspector observed a welding current of approximately 180 amps, the base material had been preheated with a torch and Mr. Wang Li appeared to be certified to make these welds. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Changfa, stencil 058102 used shielded metal arc welding procedure specification WPS-345-SMAW-4G(4F)-FCM-Repair-1 to make repairs of OBG segment 14E weld SEG3019N-294, 173, 188 208 and 218. ZPMC QC informed this QA Inspector that weld repair document B-WR-20660 documents these welds had been ultrasonically rejected. This QA Inspector observed a welding current of approximately 170 amps, the base material had been preheated with a torch and Mr. Wang Changfa appeared to be certified to make these welds. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Linjiang stencil 051356 used flux cored welding procedure WPS-B-T-2233-ESAB to make OBG segment 14E welds SEG3019Y-060~63. This QA Inspector measured a welding current of approximately 250 amps and 27.0 volts. This QA Inspector observed Mr. Wang Linjiang appeared to be certified to make these welds and the base materials had been heated with a torch. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Jian Junlin, stencil 067876 used flux cored welding procedure WPS-B-T-2233-ESAB to make repairs to OBG segment 14W traveler rail weld TR3027-TR3-001-004. This QA Inspector observed a welding current of approximately 260 amps and 26.0 volts the base material had been preheated with electric heaters and Mr. Jian Junlin 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. Jiang Yang Sheng, stencil 045240 used flux cored welding procedure WPS-B-T-2233-ESAB to make repairs to OBG segment 14W traveler rail weld TR3021-TR1-001-004. This QA Inspector observed a welding current of approximately 250 amps and 27.0 volts the base material had been preheated with electric heaters and Mr. Jiang Yang Sheng appeared to be certified to make this weld. Items

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Li Xianyou, stencil 047866 used shielded metal arc welding procedure specification WPS-B-P-2214-TC-U4B-FCM-1 to make OBG segment 14W tack weld SEG3020AH-002. This QA Inspector observed a welding current of approximately 160 amps, the base materials were heated with cutting torch and Mr. Li Xianyou appeared to be 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 James Devey +8615000026784, who represents the Office of Structural Materials for your project.

Inspected By: Dawson,Paul

Quality Assurance Inspector

Reviewed By: Riley,Ken

QA Reviewer
