

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-023587**Date Inspected:** 10-May-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. Sha Zhi

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 Trial Assembly

This QA Inspector observed ZPMC welder Mr. Wang Zhaocong, stencil 068445 used shielded metal arc process to make temporary alignment / jacking plate welds between OBG segment 13CW and 14W cross beam side plates.

This QA Inspector observed a welding current of approximately 170 amps, the base materials were heated with a torch and Mr. Wang Zhaocong 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. Zang Yanbo, stencil 045196 used shielded metal arc welding procedure WPS-345-SMAW-4F(4G)-FCM-Repair-1 to make segment 13CW repair weld AH3003-038. ZPMC QC informed this QA Inspector that weld repair document B-WR-20719 documents repairs of this weld. This QA Inspector observed Mr. Zang Yanbo appeared to be certified to make this weld. This QA Inspector observed the welding electrodes were stored in a heated portable electrode storage container. Items observed on this date

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appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Huang Hongpei, stencil 037705 used flux cored welding procedure WPS-B-T-2232-ESAB to make OBG segment 14W weld SEG3020B-0553. This QA Inspector observed a welding current of approximately 270 amps, 26.0 volts, the base material had been preheated with a torch and Mr. Huang Hongpei 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. Wu Cunnang, stencil 070101 used flux cored welding procedure specification WPS-B-T-2233-ESAB to make OBG segment 14W welds SEG3020M-222 and 223. This QA Inspector observed a welding current of approximately 270 amps, 26.0 volts and Mr. Wu Cunnang 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 Yongsheng stencil 037998 used shielded metal arc welding process to perform OBG segment 13BW tack weld on SA3127 stiffener plate welds. This QA Inspector observed the base materials did not appear to have been preheated and that portions of the groove weld had not been cleaned to remove the paint. This QA Inspector informed ZPMC CWI Mr. Sha Zhi that the base materials had not been cleaned or preheated prior to tack welding. Mr. Sha Zhi informed this QA Inspector that QC personnel do not know the weld identification number and that the tack welds will be removed and the removal areas will be inspected prior to additional welding. Items observed on this date do not fully appear to comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Liu Ya, stencil 067520 used shielded metal arc welding procedure WPS-B-P-2233-U2-FCM-1 to make OBG segment 13AW to 13BW butt weld OBW13-001. This QA Inspector observed a welding current of approximately 160 amps, the base material had been preheated with electric heaters and Mr. Liu Ya 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. Pan Ming, stencil 066673 used flux cored welding procedure WPS-345-FCAW-3G(3F)-ESAB-Repair-FCM-1 to make repairs to weld SEG3014J-092. ZPMC QC informed this QA Inspector that weld repair document B-WR-20824 documents repairs of this weld. This QA Inspector observed a welding current of approximately 280 amps, 26.5 volts, the base material had been preheated with electric heaters and Mr. Pan Ming 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. Xu Zichuan, stencil 205098 used shielded metal arc welding procedure WPS-345-SMAW-4F(4G)-FCM-Repair-1 to make base metal weld repairs of OBG segment 13AW counterweight side plate. ZPMC QC informed this QA Inspector that weld repair document B-CWR-2861 documents repairs of this weld. This QA Inspector measured a welding current of approximately 170 amps and the base materials appear to have been preheated with an electric heater and Mr. Xu Zichuan 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.

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This QA Inspector observed ZPMC welder Mr. Jiang Junlin, stencil 067876 used flux cored welding procedure WPS-345-FCAW-3G(3F)-ESAB-Repair-FCM to make repairs to weld SEG3014J-097. ZPMC QC informed this QA Inspector that weld repair document B-WR-20824 documents repairs of this weld. This QA Inspector observed a welding current of approximately 250 amps, 26.0 volts, the base material had been preheated with a torch and Mr. Jiang Junlin 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.



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
