

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-023733**Date Inspected:** 14-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. Liu Ya, stencil 067520 used shielded metal arc welding process to weld temporary plates at the cross beam side of the bottom plate of segments 13CW and 14W. This QA Inspector observed a welding current of approximately 180 amps, the base material had been preheated with a torch 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. Wang Zhacong, stencil 068445 used shielded metal arc welding used shielded metal arc welding process to make temporary alignment plate welds between OBG segment 13CW and 14W counterweight side plates. This QA Inspector observed a welding current of approximately 170 amps, the base materials were heated with a torch and Mr. Wang Zhacong appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

This QA Inspector observed ZPMC welder Mr. Jiang Yang Sheng, stencil 045240 used flux cored welding procedure WPS-B-T-2233-ESAB to make welds KP3015-001-002, 004. This QA Inspector observed a welding current of approximately 240 amps and 24.0 volts the base material had been preheated with electric heaters and Mr. Jiang Yang Sheng 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. Liao Yanfei, stencil 066398 used shielded metal arc welding procedure WPS-B-P-2212-TC-U4B-FCM-1 to make OBG segment 13BW weld SEG3013AH-045. This QA Inspector observed a welding current of approximately 190 amps, the base materials were heated with an electric heater, Mr. Liao Yanfei 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 Rucheng, stencil 066881 used flux cored welding procedure WPS-B-T-2232-ESAB to make OBG segment 13BW stiffener plate hold back welds LD3031-001-025 & 026. This QA Inspector observed a welding current of approximately 230 amps, 25.0 volts, the base material had been preheated with electrical heaters and Mr. Wang Rucheng 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 13AW weld SEG3013AU-031. 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 Junlin, stencil 067876 used flux cored welding procedure WPS-B-T-2232-ESAB to make OBG Segment 13AW welds SA3133-005-001 and 003. This QA Inspector observed a welding current of approximately 290 amps, 26.5 volts and the base materials did not appear to have been preheated prior to welding. This QA Inspector informed ZPMC CWI Mr. Sha Zhi that the base materials were at an ambient temperature prior to welding. Mr. Sha Zhi informed this QA Inspector that the weld material will be removed and the area will be inspected prior to additional welding. Items observed on this date do not appear to fully comply with applicable contract documents. See the photographs below for additional information. Later in the shift Mr. Jiang Junlin used flux cored welding procedure WPS-B-T-2232-ESAB to make OBG Segment 13BW welds EP3021-001-005, 006, 013 and 014. This QA Inspector observed a welding current of approximately 260 amps, 25.0 volts, the base material had been preheated with electric heaters 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.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)



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