

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-018761**Date Inspected:** 19-Nov-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 Inspectors: Mr. Yu Jiao, Mr. Geng Wei, Mr. Ji Cai Feng

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. Chen Chuanzong, stencil 044824 used flux cored welding procedure WPS-345-FCAW-2G(2F)-FCM-Repair to make repairs to OBG segment 14E weld SEG3019AB-096. This weld had been ultrasonically rejected and was being repaired per critical weld repair document B-CWR-2091 that documents the repair of this weld. This QA Inspector observed ZPMC QC has recorded a welding current of 309 amps and 30.6 volts. This QA Inspector observed Mr. Chen Chuanzong appeared to be certified to make this weld and the base materials were heated with electric heaters to preheat and maintain the base material temperature of this weld joint. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wu Hai Jun, stencil 201087 used shielded metal arc welding procedure specification WPS-B-P-2132 to make OBG segment 13AE welds SEG3009F-068 through 072. This QA Inspector observed a welding current of approximately 165 amps, the base material had been preheated with

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electric heaters and Mr. Wu Hai Jun 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 Changfa, stencil 058102 used shielded metal arc welding procedure specification WPS-B-P-2132 to make OBG segment 13AE welds SEG3009F-100 and 101. This QA Inspector observed a welding current of approximately 180 amps, the base material had been preheated with electric heaters and Mr. Wang Changfa 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. Kua Wen Shan stencil 054013 used shielded metal arc welding procedure specification WPS-345-SMAW-1G(1F)-Repair to make repairs to weld SEG3009S-079. This weld had been ultrasonically rejected and was being repaired per weld repair document B-WR-16733. The welding parameters recorded by ZPMC QC appeared to comply with the WPS. This QA Inspector observed Mr. Kua Wen Shan appeared to be certified to make this weld repair. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhu Ming Song, stencil 204339 used flux cored welding procedure WPS-345-FCAW-2G(2F)-Repair to make repairs of weld SEG3009-118. This weld had been ultrasonically rejected and was repaired in accordance with weld repair report B-WR16483. This QA Inspector observed Mr. Zhu Ming Song 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. Zhang Mingwu, stencil 066283 used flux cored welding procedure specification WPS-B-T-2231-U4B-F to make OBG segment 13AE welds SEG3007U-163 and 211. This QA Inspector observed ZPMC QC had recorded a welding current of 315 amps, 31.0 volts and Mr. Zhang Mingwu 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. Liu Xiaolin, stencil 067079 used flux cored welding procedure specification WPS-B-T-2231-U4B-F to make OBG segment 13AE welds SEG3007U-242 and 248. This QA Inspector observed ZPMC QC had recorded a welding current of 318 amps, 30.0 volts and Mr. Liu Xiaolin 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. Dan Deyin, stencil 044795 used flux cored welding procedure WPS-345-FCAW-2G(2F)-Repair-1 to make OBG segment 13BE weld SEG3007F-038. This weld had been ultrasonically rejected and was being repaired per weld repair document B-WR-16847 that documents the repair of this weld. This QA Inspector measured a welding current of approximately 320 amps and 28 volts and Mr. Dan Deyin 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. Chen Chuanzong, stencil 044824 used flux cored welding procedure WPS-345-FCAW-2G(2F)-FCM-Repair to make repairs to OBG segment 14E weld SEG3019AB-095. This weld had been ultrasonically rejected and was being repaired per critical weld repair document B-CWR-2090

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that documents the repair of this weld. This QA Inspector observed ZPMC QC has recorded a welding current of 320 amps and 32.5 volts. This QA Inspector observed Mr. Chen Chuanzong appeared to be certified to make this weld and the base materials were heated with electric heaters to preheat and maintain the base material temperature of this weld joint. 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 Devy +8615000026784, who represents the Office of Structural Materials for your project.

Inspected By: Dawson,Paul

Quality Assurance Inspector

Reviewed By: Carreon,Albert

QA Reviewer