

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013016**Date Inspected:** 02-Apr-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. Li Yan Hua, Mr. Chen Xi

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:

Yard between Bay 15 and Blast Shop #1

This QA Inspector observed ZPMC welder Mr. Tu Zhi Wu, stencil 214945 is using flux cored welding procedure WPS-B-T-2133 to make OBG segment 9EE weld SEG058A-004 and SEG058A-007 between longitudinal diaphragms and side plates near panel point PP82.5 and PP83. This QA Inspector observed a welding current of approximately 310 amps and 26.2 volts. This QA Inspector observed the base material was preheated prior to commencement of welding and that Mr. Tu Zhi Wu appears 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 Shau, stencil 054013 is using shielded metal arc procedure WPS-B-P-2114-FCM-1 to make a weld on OBG segment 9DE between panel point PP80 and PP81 as directed by weld repair document B-WR11013 to correct misalignment where cross beam CB12 will be attached. This QA Inspector observed Mr. Kua Wen Shau is welding on the top of a scaffold that is approximately 6 meters above the ground and he appears to be certified to perform this welding. This QA Inspector observed a welding

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

current of approximately 165 amps and the base material was preheated prior to commencement of welding. This QA Inspector observed the shielded metal arc welding electrodes are being stored in an electrically heated electrode storage container and it appears to be connected to the welding power supply cable. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Jinjin, stencil 043661, is using shielded metal arc procedure WPS-B-P-2114-FCM-1 to make a weld on OBG segment 9DE between panel point PP81 and PP82 as directed by weld repair document B-WR11013 to correct misalignment where cross beam CB12 will be attached. This QA Inspector observed Mr. Wang Jinjin is welding on the top of a scaffold that is approximately 6 meters above the ground and he appears to be certified to perform this welding. This QA Inspector observed a welding current of approximately 180 amps and the base material was preheated prior to commencement of welding. This QA Inspector observed the shielded metal arc welding electrodes are being stored in an electrically heated electrode storage container and it appears to be connected to the welding power supply cable. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Bay 14

This QA Inspector observed ZPMC welder Mr. Jin Chen Mao, stencil 058551 is using flux cored welding procedure WPS-B-T-2231-TC-U4b-F to make OBG weld SEG3001P-057 at OBG segment 12AE near panel point PP109. This QA Inspector observed a welding current of 300 amps and 31 volts. This QA Inspector observed that Mr. Jin Chen Mao appears 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 is using flux cored welding procedure WPS-B-T-2231-TC-U4b-F to make OBG weld SEG3001R-057 at OBG segment 12AE near panel point PP109. This QA Inspector observed a welding current of 270 amps and 28.5 volts. This QA Inspector observed that Mr. Dan Deyin appears 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 Wanyong, stencil 050242 has used flux cored welding procedure WPS-B-T-2231-TC-U4b-F to make OBG weld SEG3001L-056 at OBG segment 12AE near panel point PP110. This QA Inspector observed QC has recorded welding current of 310 amps and 30.5 volts. This QA Inspector observed that Mr. Wu Wanyong appears 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 stencil 044824 has recently used flux cored welding procedure WPS-B-T-2231-TC-U4b-F to make OBG weld SEG3001M-056 at OBG segment 12AE near panel point PP110. This QA Inspector observed QC has recorded welding current of 306 amps and 31.0 volts. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhao Jibo, stencil 055564 is using flux cored welding procedure WPS-B-T-2231-TC-U4b-F to make OBG weld SEG3001H-051 at OBG segment 12AE near panel point PP111. This QA Inspector observed QC has recorded welding current of 314 amps and 29.8 volts. This QA Inspector observed that Mr. Zhao Jibo appears to be certified to make this weld. Items observed on this date appeared to

WELDING INSPECTION REPORT

(Continued Page 3 of 4)

generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Hong Yong Li, stencil 044801 is using flux cored welding procedure WPS-B-T-2231-TC-U4b-F to make OBG weld SEG3001J-095 at OBG segment 12AE near panel point PP111. This QA Inspector observed QC has recorded welding current of 310 amps and 30.0 volts. This QA Inspector observed that Mr. Hong Yong Li appears 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. Bian Henggui, stencil 051359 is using shielded metal arc process WPS-B-P-2313-TC-U4b-2 to make weld SEG3001X-038 at segment 12AW near panel point PP111. This QA Inspector measured a welding current of approximately 180 amps. This QA Inspector observed the shielded metal arc welding electrodes are being stored in an electrically heated electrode storage container and Mr. Bian Henggui is 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. He Hanbi, stencil 202122 has used flux cored welding procedure WPS-B-T-2133 to make OBG weld DP3063-001-096 through DP3063-001-124. These welds are located between closed ribs and diaphragm plates near the center of OBG Bay 14. This QA Inspector observed QC has recorded a welding current of 211 amps and 24.6 volts. This QA Inspector observed Mr. He Hanbi appears 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. Ji Hongwei, stencil 058245 is using flux cored welding procedure WPS B-T-2133 to make OBG segment 12BW weld DP3057-001-118. This QA Inspector observed a welding current of approximately 210 amps and 24.5 volts and that the base material had been preheated with a torch. This QA Inspector observed Mr. Ji Hongwei appears to be certified to make this weld. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

This QA Inspector observed ZPMC welder Ms. Li Jiao, stencil 049861 is using shielded metal arc welding procedure specification WPS-B-P-2211-B-U2 to make tack weld SEG3001*-023 between deck plates DP3008-001 and DP3009-001. This QA Inspector observed a welding current of approximately 165 amps and Ms. Li Jiao appears to be certified to make this weld. This QA Inspector observed the shielded metal arc welding electrodes are being stored in an electrically heated electrode storage container which is hot to the touch and the base material was preheated with a torch prior to tack welding. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Bay 13

This QA Inspector observed ZPMC welder Ms. Chen Fenglian, stencil 206623 has been using flux cored welding procedure WPS-345-FCAW-1G(1F)-Repair-1 to make weld repairs of traveler rail 20TR2-016-011 in accordance with weld repair document BWR11160. This QA Inspector observed ZPMC QC Inspector Mr. Guo Yuan Ting is monitoring this welding and that Ms. Chen Fenglian is 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. Cheng Yueying, stencil 050977 is using flux cored welding

WELDING INSPECTION REPORT

(Continued Page 4 of 4)

procedure WPS-345-FCAW-1G(1F)-Repair-1 to make weld repairs of traveler rail 20TR2-013-015 in accordance with weld repair document BWR11160. This QA Inspector observed ZPMC QC Inspector Mr. Guo Yuan Ting is monitoring this welding and that Mr. Cheng Yueying is certified to make this weld. This QA Inspector observed a welding current of approximately 300 amps and 31.6 volts. 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 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
