

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012837**Date Inspected:** 25-Mar-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 and Tower**Summary of Items Observed:**

CWI Inspectors: Mr. An Qing Xiang, Liu Hua Jie and Mr. Du Zhi Qun

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:

Tower Bay 11

This QA Inspector observed ZPMC welder Mr. Yang Meizhen, stencil 042195 using submerged arc welding procedure specification WPS-B-T-2331-TC-P4F to make groove weld WSD1-TL5-4B/F-37B between West Tower Lift 4 skin plate D to skin plate E. This QA Inspector observed Quality Control inspector Mr. Li Jun monitoring the base material temperature and other welding attributes. This QA Inspector observed QC as recorded a welding current of 632 amps and 29.8 volts. Items observed on this date appear to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Ms. Shi Fenhua, stencil 040699 using submerged arc welding procedure specification WPS-B-T-2331-TC-P4F to make groove weld WSD1-TL5-4B/F-6B between West Tower Lift 4 skin plate D to skin plate E. This QA Inspector observed Quality Control inspector Mr. Li Jun monitoring the base material temperature and other welding attributes. This QA Inspector measured a welding current of

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approximately 610 amps and 30.0 volts. Items observed on this date appear to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Xu Hua, stencil 049220 is using flux cored welding procedure WPS-B-T-2232-TC-P4-F to make West tower Lift 4 corner plate weld WSTL4-2B/L-16 near elevation 144M. This QA Inspector measured a welding current of approximately 200 amps and 29 volts and ZPMC QC Inspector Mr. Shao Hai Lang is monitoring this welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Huang Guo qi, stencil 059525 is using flux cored welding procedure WPS-B-T-2231-TC-P4-F to make West tower Lift 4 corner plate weld WSTL4-2B/L-26 near elevation 142M. This QA Inspector observed QC has recorded a welding current of 300 amps and 31.2 volts and ZPMC QC Inspector Mr. Shao Hai Lang is monitoring this welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhang Bing Hua, stencil 053316 is using flux cored welding procedure WPS-B-T-2231-TC-P4-F to make West tower Lift 4 corner plate weld WSTL4-2B/L-16 near elevation 140M. This QA Inspector measured a welding current of approximately 300 amps and 30 volts and ZPMC QC Inspector Mr. Shao Hai Lang is monitoring this welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Bin, stencil 040713 is using flux cored welding procedure WPS-B-T-2232-TC-P4-F to make West tower Lift 4 corner plate weld WSTL4-2B/L-22 near elevation 138M. This QA Inspector measured a welding current of approximately 200 amps and 30 volts and ZPMC QC Inspector Mr. Shao Hai Lang is monitoring this welding. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Bay 14

This QA Inspector observed ZPMC welder Mr. Hue Junrong, stencil 201215 is using flux cored welding procedure WPS-B-T-2132 to make OBG weld SEG3006N-041. This weld is located in OBG segment 12CW. This QA Inspector measured a welding current of approximately 280 amps and 32.0 volts. This QA Inspector observed Mr. Hue Junrong appears to be certified to make this weld and QC Inspector Mr. Shao Hai Lang is monitoring this welding. 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-2132 to make OBG weld SEG3006M-051. This weld is located in OBG segment 12CW. This QA Inspector observed ZPMC CWI Mr. Liu Hua Jie has recorded a welding current of 278 amps and 29.6 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.

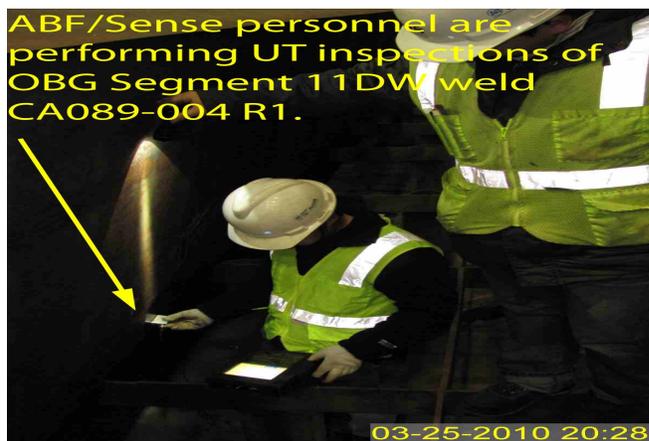
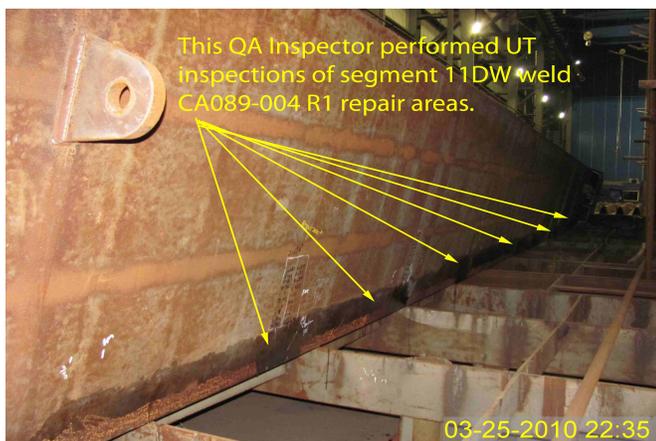
This QA Inspector observed ZPMC welder Mr. Zhang Yaobing, stencil 204730 has used flux cored welding procedure WPS-B-T-2132 to make OBG weld SEG3006K-044. This weld is located in OBG segment 12CW.

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This QA Inspector observed ZPMC CWI Mr. Liu Hua Jie has recorded a welding current of 278 amps and 29.6 volts. Items observed on this date appeared to generally comply with applicable contract documents.

ABF issued "Inspection Notification Sheet" number 03252010-1 item #2 informing QA that at 18:30 hours ABF Inspectors will be performing ultrasonic (UT) inspections of repaired weld CA089-004 which joins deck plate to edge plate of OBG segment 11DW on the counterweight side. This weld is located in OBG Bay 14. This QA Inspector observed ABF/Sense UT Inspection personnel performing inspections of parts of this weld and that they have marked UT rejections at locations Y=8275, Y=8280, Y=8285 and Y=13295. This QA Inspector performed ultrasonic inspections at of the weld repair locations as listed on the UT report data sheets for detection of longitudinal and planar transverse indications utilizing scanning patterns A, B, C and D (AWS D1.5 Fig 6.7) and no additional UT rejections were observed. Items observed on this date appeared to generally comply with applicable contract documents, except for the four UT rejections identified by ABF/Sense Inspectors. Note: These inspections are being documented and tracked on "Verification Witness Request" documents and no TL-6027 UT report was issued for these inspections.



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
