

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-008486**Date Inspected:** 13-Aug-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1845**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 715**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:** Tower Fabrication**Summary of Items Observed:**

CWI Inspectors: Mr. Li Yan Hua, Mr. Lu Li Qing, Mr. Zhong Guo Hui

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 Segment 6AE (Yard)

This QA Inspector observed ZPMC welder Mr. Wu Hai Jun, stencil 201087 is using shielded metal arc procedure WPS-B-P-2113-FCM-1 to fillet weld angles that connect floor beam FB034-001 to the tops of side panel T ribs. The QA Inspector observed a welding current of approximately 160 amps and Mr. Wu Hai Jun is qualified 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 warm to the touch 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. Zhao Jibo, stencil 055564 is using flux cored welding procedure WPS-B-T-2232 to make OBG stiffener to side plate weld SP543-001-077. This QA Inspector observed a welding

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current of approximately 280 amps and 30.9 volts. This QA Inspector observed ZPMC QC/CWI Inspector Mr. Zhong Guo Hui monitoring this welding and Mr. Zhao Jibo is qualified to make this weld. 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-2232 to make OBG stiffener to side plate weld SP623-001-057. This QA Inspector observed a welding current of approximately 280 amps and 30.9 volts. This QA Inspector observed ZPMC QC/CWI Inspector Mr. Zhong Guo Hui monitoring this welding and Mr. Zhao Jibo is qualified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed Mr. Wang Jinjin, stencil 043661 is using shielded metal arc process WPS-B-P-2114-FCM-1 to weld the ends of OBG side plate stiffener weld SP623-001-029. This QA Inspector observed a welding current of approximately 180 amps, the base material was cleaned where the welds were being made and Mr. Wang Jinjin is qualified 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 warm to the touch 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. Hong Yong Li, stencil 044801 has using flux cored welding procedure WPS-B-T-2232 to make OBG stiffener to side plate weld SP623-001-032. This QA Inspector observed ZPMC QC/CWI Inspector Mr. Zhong Guo Hui has recorded a welding current of 316 amps and 29.8 volts. Items observed on this date appeared to generally comply with applicable contract documents.

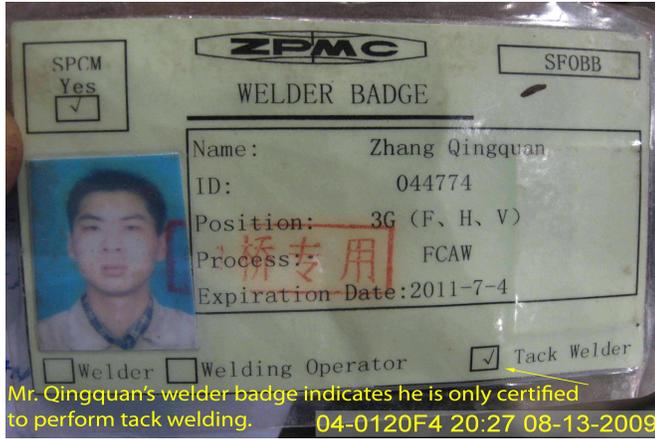
This QA Inspector observed ZPMC welder Mr. Wang Chunsheng, stencil 204591 is using welding procedure specification WPS-B-P-2112-FCM to use the shielded metal tack weld process between OBG longitudinal diaphragm LD001-027 and baseplate BP182-001. This QA Inspector observed Wang Chunsheng is certified to make this weld and the QA Inspector measured a welding current of approximately 140 amps. This QA Inspector observed the shielded metal arc welding electrodes are being stored in an electrically heated electrode storage container which is warm to the touch. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Bay 13

This QA Inspector observed ZPMC welder Mr. Zhang Qingquan, stencil 044774 is using the flux cored welding process to make flux cored welds between deck plate DP393-001 closed ribs and a diaphragm plate in the 3F position. This QA Inspector observed Mr. Zhang Qingquan has a certification card which lists him as being qualified to make tack welds and this certification card does not indicate Mr. Zhang Qingquan is certified to make fillet welds in the 3F position. This QA Inspector showed this welder certification card to ZPMC QC Inspector Mr. Wang Xu and he said the certification card is incorrect. ZPMC CWI Mr. Li Liqing and ABF representative Mr. Wang Heng also informed this QA Inspector that the certification card is incorrect and that Mr. Zhang Qingquan is certified to make this weld. This QA Inspector observed a welding current of approximately 260 amps and 24.0 volts. Items observed on this date appeared to generally comply with applicable contract documents. See the photograph of Mr. Zhang Qingquan's welding certification card below.

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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 Serge Sinevod phone: 134-8257-0045 , who represents the Office of Structural Materials for your project.

Inspected By: Dawson,Paul Quality Assurance Inspector

Reviewed By: Carreon,Albert QA Reviewer