

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-017016**Date Inspected:** 21-Sep-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:**

ZPMC CWI Inspectors: Mr. Liu Hua Jie, Mr. Li Yan Hua, ABF CWI: Mr. Peng Wen Jun

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 Trial Assembly

This QA Inspector observed ZPMC welder Mr. Zhou Yuanning, stencil 62814 used shielded metal arc welding procedure WPS-B-P-2112 tack weld a suspender bracket temporary mounting plate to the top deck of 10CE on the bikepath side near panel point PP094. This QA Inspector observed a welding current of approximately 145 amps, a torch was used to preheat the steel and Mr. Zhou Yuanning appeared to be certified to perform this welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Xue Fu Tai stencil 500674 used shielded metal arc process to make temporary alignment plate tack welds between OBG segment 11AW and 11BW top deck plates. This QA Inspector observed a welding current of approximately 170 amps, Mr. Xue Fu Tai appeared to be certified to perform this welding and the welding electrodes were being stored in a portable rod oven which was warm to the touch. Items observed on this date appeared to generally comply with applicable contract documents.

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This QA Inspector observed ZPMC personnel appear to have recently used shielded metal arc process to tack weld temporary alignment / jacking plates to the cross beam side plates at the stiffener plate weld joints between OGB segments 10CW and cross beam CB14. At approximately 20:00 hours this QA Inspector observed no welders appear to be inside CB14 and the “Industrial Scientific Model M40” air monitor which this QA Inspector was carrying alarmed and the display indicated a carbon monoxide (CO) value of approximately 29ppm. Note: CO levels above 35ppm are considered hazardous and the CO level inside CB14 is within acceptable levels, but the amount of CO is approaching a dangerous level. Later in the shift ZPMC QC Inspector Mr. Zhou Peng informed this QA Inspector that ZPMC welders Mr. Zhang Qiu Jun stencil 057333 and Mr. Chen Rui stencil 041713 were performing shielded metal arc welding to install temporary alignment plates inside CB14. This QA Inspector observed both welders appeared to be certified to perform this welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Xiaomin, stencil 046709 used shielded metal arc welding procedure specification WPS-B-P-2214-TC-U4B-FCM-1 to complete hold back welds CA077-006 in OBG segment 10CW and weld CA079-002 in OBG segment 11AW. These welds join the deck plate to the edge plate on the cross beam side near panel point PP095. This QA Inspector observed a welding current of approximately 185 amps, Mr. Wang Xiaomin appeared to be certified to make this weld and ZPMC QC is monitoring this welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Jiang Peng Cheng, stencil 040562 used shielded metal arc process to tack weld temporary alignment plates between the top deck plate and bikepath cantilever beam on OBG segment 10BE near panel point PP091. This QA Inspector observed a welding current of approximately 180 amps, a torch was used to preheat the steel, the welding electrodes were stored in a heated oven and Mr. Jiang Peng Cheng appeared to be certified to perform this welding. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Bay 19

This QA Inspector observed ZPMC welder Mr. Yu Fangyu, stencil 208632 used flux cored welding process to make bikepath welds BK004A6-011-165. This QA Inspector measured a welding current of approximately 220 amps. This QA Inspector observed ABF CWI Mr. Peng Wen Jun monitoring this welding. Items observed on this date appeared to generally comply with applicable contract documents.

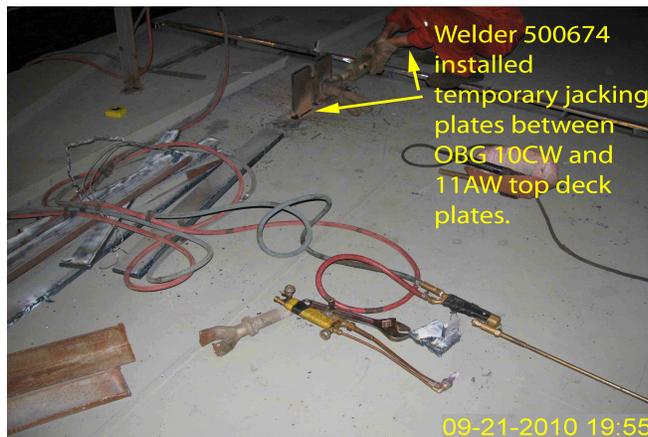
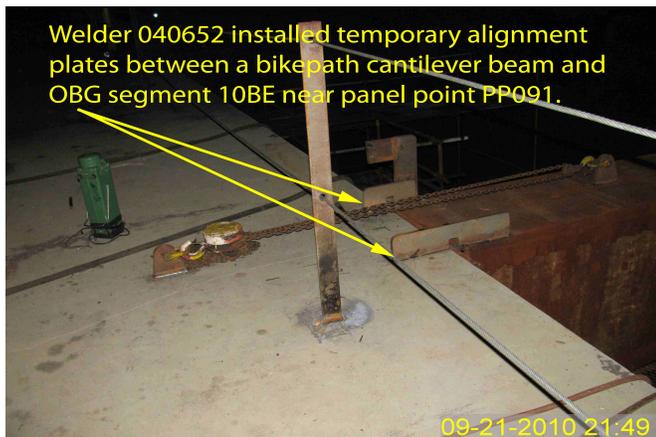
This QA Inspector observed ZPMC welder Mr. Zhang Jian Kang, stencil 062762 used shielded metal arc welding procedure WPS-B-T-2233-TC-U4B-F to make suspender bracket tack weld SB020-086-001. This suspender bracket is located in Bay 19. This QA Inspector observed ABF CWI Mr. Peng Wen Jun has recorded a welding current of 284 amps and 30.5 volts. This QA Inspector observed Mr. Wang Qixiang appeared to be certified to perform this welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Cai Hai Long, stencil 062749 used shielded metal arc welding procedure WPS-B-T-2232-TC-U4B-F to make suspender bracket tack weld SB020-090-018. This suspender bracket is located in Bay 19. This QA Inspector observed ABF CWI Mr. Peng Wen Jun has recorded a welding current of 284 amps and 30.5 volts. This QA Inspector observed Mr. Cai Hai Long appeared to be certified to

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perform this welding. 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
