

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-017647**Date Inspected:** 29-Oct-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 Inspector: ZPMC: Mr. Lv Li Qing

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. Bian Henggui stencil 051359 used shielded metal arc welding process to make OBG segment 13BE tack welds on deck plate 3188-001 between PL3184A and PL3184B. This QA Inspector observed the base material did not appear to have been preheated prior to welding. This QA Inspector informed ZPMC CWI Mr. Lv Li Qing that the workers did not appear to have a torch in the area where the welding was taking place and the base materials had not been preheated prior to welding. Mr. Lv Li Qing informed this QA Inspector that the tack welds will be ground out and that the workers will use a torch to preheat the base material prior to making any additional tack welds. This QA Inspector asked ZPMC CWI Mr. Lv Li Qing the identification of this weld joint and after he looked at the available drawings, he informed this QA Inspector that he was not able to determine this weld number. This QA Inspector observed the welding electrodes were stored in a portable rod oven which was warm to the touch. Items observed on this date do not fully appear to comply with applicable contract documents.

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This QA Inspector observed ZPMC welder Mr. Kua Wen Shan stencil 054013 used shielded metal arc procedure WPS-B-P-2213-FCM-1 to make OBG segment 13CE weld SEG3011J-027. This weld joins stiffener plates to floor beam FB3153-001 near panel point PP124. This QA Inspector observed a welding current of approximately 160 amps and the base materials appeared to have been preheated with electric heaters prior to commencement of welding. This QA Inspector observed the shielded metal arc welding electrodes were stored in an electrically heated electrode storage container that was warm to the touch. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Guo Taotao stencil 050969 used shielded metal arc procedure WPS-B-P-2213-FCM-1 to make OBG segment 13CE weld SEG3011J-028. This weld joins stiffener plates to floor beam FB3153-001 near panel point PP124. This QA Inspector observed a welding current of approximately 165 amps and the base materials appeared to have been preheated with electric heaters prior to commencement of welding. This QA Inspector observed the shielded metal arc welding electrodes were stored in an electrically heated electrode storage container that was warm to the touch. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wu Haijun stencil 201087 used shielded metal arc procedure WPS-B-P-2213-FCM-1 to make OBG segment 13CE weld SEG3011G-026. This weld joins stiffener plates to floor beam FB3157-001 near panel point PP123.5. This QA Inspector observed a welding current of approximately 160 amps and the base materials appeared to have been preheated with electric heaters prior to commencement of welding. This QA Inspector observed the shielded metal arc welding electrodes were stored in an electrically heated electrode storage container that was warm to the touch. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Li Stoufu stencil 066674 used shielded metal arc procedure WPS-B-P-2213-FCM-1 to make OBG segment 13CE weld SEG3011G-027. This weld joins stiffener plates to floor beam FB3157-001 near panel point PP123.5. This QA Inspector observed a welding current of approximately 180 amps and the base materials appeared to have been preheated with electric heaters prior to commencement of welding. This QA Inspector observed the shielded metal arc welding electrodes were stored in an electrically heated electrode storage container that was warm to the touch. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Fong Youjun stencil 066416 used shielded metal arc procedure WPS-B-P-2213-FCM-1 to make OBG segment 13CE weld SEG3011K-029. This weld joins stiffener plates to floor beam FB3149-001 near panel point PP124.5. This QA Inspector observed a welding current of approximately 160 amps and the base materials appeared to have been preheated with electric heaters prior to commencement of welding. This QA Inspector observed the shielded metal arc welding electrodes were stored in an electrically heated electrode storage container that was warm to the touch. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Li, stencil 044772 used shielded metal arc welding procedure specification WPS-345-SMAW-4G(4F)-FCM-1 to make OBG segment 13CE weld SEG3009S-067. This weld joins EB3024-001 to floor beam FB3142A near panel point PP121.5. This QA Inspector observed a welding current of approximately 170 amps that Mr. Wang Li appeared to be certified to make this weld. This QA

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Inspector observed the base material appeared to have been preheated with electric heating elements. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Hu Yancheng stencil 049339 used shielded metal arc welding procedure specification WPS-B-P-2113-FCM-1 to make OBG segment 13CE weld SEG3009J-165. This weld joins a stiffener plate to floor beam FB3134 near panel point PP122.5. This QA Inspector observed Mr. Hu Yancheng appeared to be certified to make this weld. This QA Inspector observed the base material appeared to have been preheated with electric heating elements. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Ms. Wang Min, stencil 044771 used submerged arc welding procedure specification WPS-B-T-2221-B-L2C-S-2 to make OBG segment 14E weld SEG3019AL-005. This weld joins side plate SP3116C to SP3117C. This QA Inspector measured a welding current of approximately 630 amps, 30.0 volts and Ms. Wang Min appeared to be certified to make this weld. This QA Inspector observed the base materials were preheated with electric heaters prior to welding. 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-B-T-2221-B-L2C-S-2 make OBG segment 14E root pass weld SEG3019AL-288. This weld joins side plate SP3116A to SP3117A. This QA Inspector measured a welding current of approximately 320 amps, 31.0 volts and Mr. Chen Chuanzong appeared to be certified to make this weld. This QA Inspector observed the base materials were preheated with electric heaters prior to welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Liu Zipei, stencil 062406 used submerged arc welding procedure WPS-B-T-2221-B-U3C-S-2 to make OBG segment 14E weld SEG3019AP-005. This QA Inspector observed a welding current of approximately 320 amps and 33.0 volts. Mr. Liu Zipei appeared to be certified to make this weld and the base material was preheated with electric heating elements. Items observed by this QA Inspector appeared to be progressing in compliance with project specifications.

This QA Inspector observed ZPMC welder Mr. Wang Jinjiu stencil 043661 used shielded metal arc procedure WPS-B-P-2213-FCM-1 to make OBG segment 13CE weld SEG3009H-101. This weld joins side plate stiffeners to a floor beam near panel point PP123. This QA Inspector observed a welding current of approximately 160 amps and the base materials appeared to have been preheated with electric heaters prior to commencement of welding. This QA Inspector observed the shielded metal arc welding electrodes were stored in an electrically heated electrode storage container that was warm to the touch. Items observed on this date appeared to generally comply with applicable contract documents.

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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 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
