

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-017914**Date Inspected:** 07-Nov-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: ZPMC: Mr. Li Ming Yang, Mr. Yu Jiao, Mr. Li Yan Hua

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 13

This QA Inspector observed ZPMC welder 062782 used flux cored welding procedure WPS-B-T-2233-TC-U5-F to make OBG segment 14AE grillage weld SA7038-030. This QA Inspector measured a welding current of approximately 215 amps and 26.5 volts. This QA Inspector observed the base materials were heated with electric heaters to preheat and maintain the base material temperature of this weld joint. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Li Shoufu stencil 066674 used flux cored welding procedure WPS-B-T-2233-TC-U5-F to make OBG segment 14AE grillage weld SA7038-044. This QA Inspector measured a welding current of approximately 200 amps and 26.0 volts. This QA Inspector observed Mr. Li Shoufu appeared to be certified to make this weld and the base materials were heated with electric heaters to preheat and maintain the base material temperature of this weld joint. Items observed on this date appeared to generally comply with applicable contract documents.

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This QA Inspector observed ZPMC welder Mr. Ye Bing stencil 066733 used flux cored welding procedure WPS-B-T-2233-TC-U5-F to make OBG segment 14AE grillage weld SA7038-058. This QA Inspector measured a welding current of approximately 215 amps and 26.0 volts. This QA Inspector observed Mr. Ye Bing appeared to be certified to make this weld and the base materials were heated with electric heaters to preheat and maintain the base material temperature of this weld joint. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Bay 14

This QA Inspector observed a ZPMC worker used the shielded metal arc welding process to tack weld a temporary jacking plate to the bottom surface of side plate SP3066C. This QA Inspector asked ZPMC QC Inspector Mr. Zhong Yong Gang which worker had made this tack weld. Mr. Zhong Yong Gang stated that no welding had taken place at that location. This QA Inspector used an infrared thermometer to show Mr. Zhong Yong Gang that the temperature of the tack weld was significantly warmer than the adjacent base material. This QA Inspector observed none of the workers adjacent to the temporary weld appeared to be certified to perform welding and that the base materials did not appear to have been preheated prior to welding. This QA Inspector informed ABF representative Mr. Yi Cai Fang that a temporary weld had been made by an unknown person that did not appear to be certified to make this weld. A few minutes later Mr. Yi Cai Fang indicated that Mr. Zhong Yong Gang has told the workers to remove the tack weld. This QA Inspector witnessed a worker using a grinder to remove the tack welds. Following removal of the temporary weld, items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Hao Jianxiang stencil 067665 used shielded metal arc welding procedure specification WPS-B-P-2114-FCM-1 to perform OBG segment 13CW stiffener plate welds SEG3015N-075 and -076. This QA Inspector observed ZPMC QC Inspector Mr. Li Ming Yang recorded a welding current of 130 amps. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder stencil 066326 used shielded metal arc welding procedure specification WPS-B-P-2114-FCM-1 to perform OBG segment 13CW stiffener plate welds SEG3015N-063 and -064. This QA Inspector observed ZPMC QC Inspector Mr. Li Ming Yang recorded a welding current of 131 amps. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder stencil 068764 used shielded metal arc welding procedure specification WPS-B-P-2114-FCM-1 to perform OBG segment 13CW stiffener plate welds SEG3015N-069 and -070. This QA Inspector observed ZPMC QC Inspector Mr. Li Ming Yang recorded a welding current of 126 amps. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder stencil 067572 used shielded metal arc welding procedure specification WPS-B-P-2114-FCM-1 to perform OBG segment 13CW stiffener plate welds SEG3015N-081 and -082. This QA Inspector observed ZPMC QC Inspector Mr. Li Ming Yang recorded a welding current of 122 amps. Items observed on this date appeared to generally comply with applicable contract documents.

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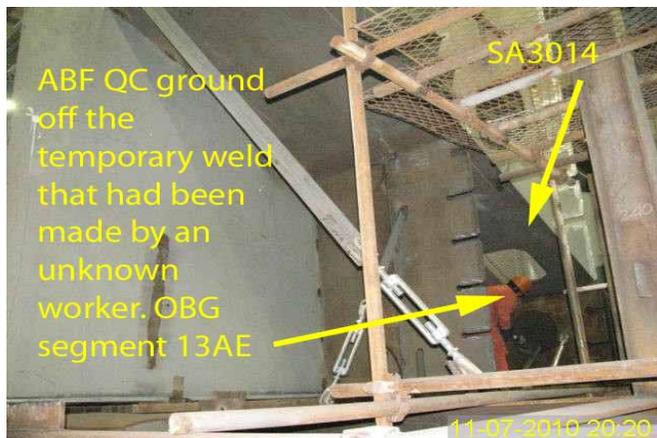
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This QA Inspector observed ZPMC welder Mr. He Hanbi, stencil 202122 used flux cored welding procedure WPS-B-T-2233-TC-P4-F to make OBG segment 13CW welds SEG30133AW-046 and -047. This QA Inspector observed ZPMC QC Inspector Mr. Li Ming Yang recorded a welding current of 211 amps and 24.5 volts. Mr. He Hanbi appeared to be certified to make this weld and the base materials appeared to have been preheated with electrical heaters prior to welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder stencil 069682 used flux cored welding procedure WPS-B-T-2233-TC-P4-F to make OBG segment 13AW welds SEG30133AW-046 and -047. This QA Inspector observed ZPMC QC Inspector Mr. Li Ming Yang recorded a welding current of 292 amps and 31.2 volts. Mr. He Hanbi appeared to be certified to make this weld and the base materials appeared to have been preheated with electrical heaters prior to welding. Items observed on this date appeared to generally comply with applicable contract documents

This QA Inspector observed ZPMC welder Mr. Li Jun, stencil 051348 used flux cored welding procedure WPS-B-T-2233-TC-P4-F to make OBG segment 13AW welds SEG30133AV-053 and -056. This QA Inspector observed ZPMC QC Inspector Mr. Li Ming Yang recorded a welding current of 294 amps and 30.4 volts. Mr. Li Jun appeared to be certified to make this weld and the base materials were preheated with electrical heaters prior to welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Li Xianyou, stencil 047866 used flux cored welding procedure WPS-B-T-2233-TC-P4-F to make OBG segment 13AW welds SEG30133AV-051 and -054. This QA Inspector observed ZPMC QC Inspector Mr. Li Ming Yang recorded a welding current of 307 amps and 31.2 volts. Mr. Li Xianyou appeared to be certified to make this weld and the base materials were preheated with electrical heaters prior to 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 James Devy +8615000026784, who represents the Office of Structural Materials

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for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
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Reviewed By:	Carreon,Albert	QA Reviewer
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