

**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-015425**Date Inspected:** 30-Jun-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: Mr. Wu Zhi Chang

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 Ms. Xu Fuqin, stencil 215326 was using shielded metal arc procedure WPS-B-T-2113 to make fillet weld Retro-G-01-7DW-007. This weld installs a "T" brace to the side plate between OBG segment 7DW cross beam side plate stiffener plates between panel points PP055 and PP056. This QA Inspector observed ZPMC used a torch to preheat the base material prior to welding. ZPMC QC Inspector Mr. Zhen Jian Bo verified the base material was adequately preheated and Ms. Xu Fuqin appeared 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 Ms. Hu Xiuli, stencil 215248 was using shielded metal arc procedure WPS-B-T-2113 to make fillet weld Retro-G-03-7DW-007. This weld installs a "T" brace to the side plate between OBG segment 7DW cross beam side plate stiffener plates between panel points PP055 and PP056. This QA Inspector measured a welding current of approximately 185 amps and observed ZPMC used a torch to preheat the base material prior to welding. ZPMC QC Inspector Mr. Zhen Jian Bo verified the base material was

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adequately preheated and Ms. Hu Xiuli appeared 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. Liu Yong Hai stencil 215397, using flux cored welding procedure WPS-B-T-2133 to make a “Retro-G” fillet weld. ZPMC QC Inspector Mr. Shen Jian Bo did not appear to know the weld identification number. This weld installs a “T” brace between the longitudinal diaphragm and a bottom plate stiffener at OBG segment 7CW on the cross beam side between panel points PP055 and PP056. This QA Inspector measured a welding current of approximately 345 amps and 30.0 volts and observed ZPMC used a torch to preheat the base material prior to welding. ZPMC QC Inspector Mr. Zhen Jian Bo verified the base material was adequately preheated and Mr. Liu Yong Hai appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents. See the photograph below for additional information.

### OBG Bay 19

This QA Inspector observed ZPMC welders Mr. Wang Qixiang, stencil 062812 and Mr. Li Jian Feng, stencil 260151 appear to have been using the shielded metal arc welding process to make various OBG bikepath fillet tack welds on various bikepath plates in OBG Bay 19. This QA Inspector did not observe any ZPMC Quality Control Certified Welding Inspector or ABF personnel in OBG Bay 19 and none of the welders spoke any English. This is the second day in a row when ZPMC welders were working in OBG Bay 19 without any QC or ABF Inspectors monitoring the workers. This QA Inspector did not observed measured a welding current of approximately 150 amps and Mr. Li Jian Feng appeared to be certified to make this weld. Items observed on this date did not fully appear to comply with applicable contract documents.

### OBG Bay 14

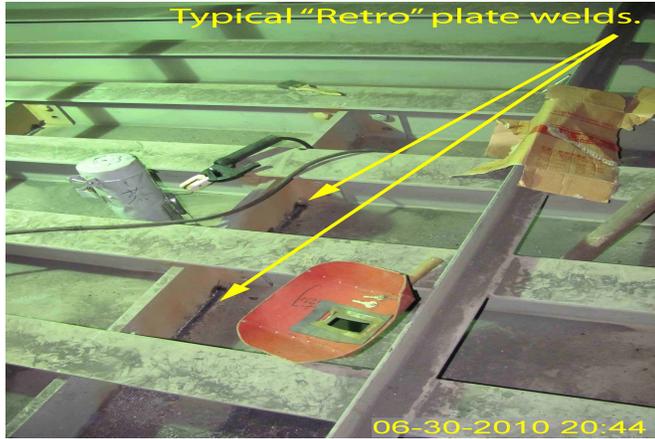
This QA Inspector observed ZPMC welder Mr. Pan Wei, stencil 218662 appeared to have used the shielded metal arc welding process to make tack welds near the cross beam corner assembly near panel point 112, OBG segment 12AW. This QA Inspector observed Mr. Pan Wei has shielded metal arc welding electrodes in a portable storage container and this QA Inspector did not observe any ZPMC QC Inspectors in the area. Mr. Pan Wei appeared to be certified to perform tack welds, but Mr. Pan Wei was not welding when this QA Inspector was present. This QA Inspector asked ABF representative Mr. Ji Cai Fang if a ZPMC QC Inspector had been monitoring this welding and Mr. Ji Cai Fang said there had been a QC Inspector monitoring this welding. 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.

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<b>Inspected By:</b>	Dawson,Paul	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer

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