

**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-014867**Date Inspected:** 05-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 Inspectors: Mr. Li Yang, Mr. Wu Zhi Chen, Mr. Wu Shi Gao

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. Wang Zhenbing, stencil 216086 is using shielded metal welding procedure WPS-345-SMAW-3G(3F)-Repair to make OBG stiffener plate weld SEG044E-118 which was identified as being misaligned on weld repair document B-WR-13262. This weld is located between OBG segment 8AE panel points PP63 and PP63.5 on the cross beam side deck plate. This QA Inspector observed Mr. Wang Zhenbing appears to be certified to make this weld. This QA Inspector measured a welding current of approximately 165 amps and the base material appears to have been preheated with a torch prior to welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Yang Yunfeng, stencil 215553 is using shielded metal welding procedure WPS-345-SMAW-3G(3F)-Repair to make OBG stiffener plate weld SEG044E-073 which was identified as being misaligned on weld repair document B-WR-13262. This weld is located between OBG segment 8AE panel points PP63.5 and PP64 on the cross beam side deck plate. This QA Inspector observed Mr.

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Yang Yunfeng appears to be certified to make this weld. This QA Inspector measured a welding current of approximately 170 amps and the base material appears to have been preheated with a torch prior to welding. Items observed on this date appeared to generally comply with applicable contract documents. See the photograph below for additional information.

OBG Segments located in the yard behind bays 14 and 15

This QA Inspector observed ZPMC welder Mr. Ge Hao, stencil 201583 is using flux cored welding procedure WPS-B-T-2231-TC-U4b-F to make weld SSD10A-PP105-010 in OBG segment 11DW at panel point 105. This QA Inspector measured a welding current of approximately 305 amps and 29.8 volts and Mr. Ge Hao appears 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. Hue Junrong, stencil 201215 is using flux cored welding procedure WPS-B-T-2232-TC-U5-F to make OBG segment 11DW weld SSD10-PP104-226. This QA Inspector measured a welding current of approximately 300 amps and 31.0 volts and Ms. Hue Junrong appears 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. He Hanbi, stencil 202122 is using flux cored welding procedure WPS-B-T-2231-TC-U4b-F to make weld CA092-012. This weld is located in OBG segment 11EW between panel points PP107 and PP108. This QA Inspector observed ZPMC QC Certified Welding Inspector Mr. Wu Shi Gao has recorded a welding current of 310 amps and 30.0 volts. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Chang Ming, stencil 047864 is using shielded metal arc welding procedure specification WPS-B-P-2212-FCM-1 to complete OBG segment 11EW welds SSD13A-PP108-050 through 062 near panel point PP107. This QA Inspector observed the welding electrodes are being stored in a portable electrode storage oven that is warm to the touch and Mr. Wang Chang Ming appears 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. Bi Xiaofei, stencil 045204 is using shielded metal arc procedure WPS-B-P-2113-FCM-1 to make weld CA089-087 in OBG segment 11DW near panel point PP106. This QA Inspector measured a welding current of approximately 170 amps and Mr. Bi Xiaofei appears to be certified 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 the base material was preheated with a torch prior to 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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