

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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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-017008**Date Inspected:** 11-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. Lv Li Qing, Mr. Wang Jie, ABF CWI Mr. Wang Heng

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:

Bay 15

This QA Inspector observed ZPMC welder Ms. Wang Lanying, stencil 045265 used submerged arc welding procedure WPS-B-T-2221-U3C-S-2 to make OBG segment 13AW weld SEG3013AC-001 between plates PL3074A and PL3075A. This QA Inspector observed a welding current of approximately 640 amps, 31.5 volts, Ms. Wang Lanying appeared to be certified to make this weld, and electrical heaters had been used to preheat the base material. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

This QA Inspector observed ZPMC welder Ms. Zhang Cai Me, stencil 207237 used submerged arc welding procedure WPS-B-T-2221-U3C-S-2 to make OBG segment 13AW weld SEG3013AC-001 between plates PL3074A and PL3075A. This QA Inspector observed a welding current of approximately 710 amps, 28.5 volts and Ms. Zhang Cai Me appeared to be certified to make this weld, and electrical heaters had been used to preheat the base material. Items observed by this QA Inspector appear to be progressing in compliance with project

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specifications.

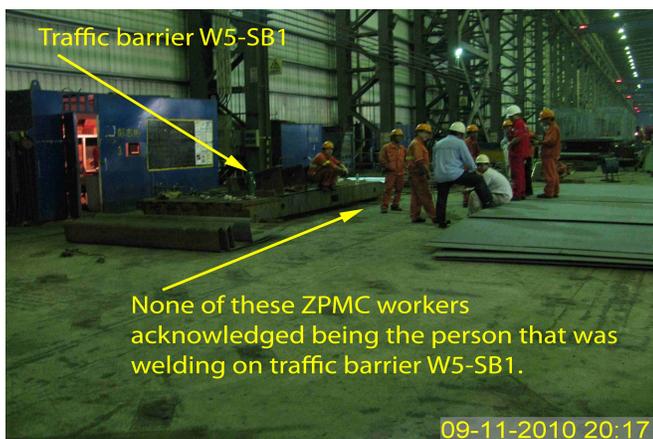
## OBG Bay 19

This QA Inspector observed ZPMC welder Mr. Shao Xiao Bin, stencil 259653 used shielded metal arc welding procedure WPS-B-T-2211-FCM-1 to make various tack welds on bikepath BK004A6-011. This QA Inspector measured a welding current of approximately 160 amps.

This QA Inspector observed the welding electrodes were stored in a portable electrode storage container that was not connected to any electrical power and the electrodes appeared to be at an ambient temperature. This QA Inspector informed ZPMC QC Inspector Mr. Li Ming Yang that the electrodes were at an ambient temperature and Mr. Li Ming Yang said no additional welding electrodes will be used because the work shift is ending and the welder is going home. Mr. Shao Xiao Bin appeared to be certified to make this weld. Items observed on this date do not appear to fully comply with applicable contract documents.

## OBG Bay 16

This QA Inspector observed ZPMC personnel used the shielded metal arc process to tack weld OBG traffic barrier W5-SB1 plates into position. As this QA Inspector arrived where this work was taking place this QA Inspector questioned the workers adjacent to the traffic barrier and none of the ZPMC workers appeared to have a welder identification card and none of the workers acknowledged to have performed the tack welding. This QA Inspector asked the workers who was the ZPMC QC Inspector that was monitoring this work and none of the ZPMC workers responded to these queries. About fifteen minutes later one of the workers brought ZPMC welder Ms. Zhang Cai Mei to this area and he indicated that she had been performing this welding. QA phoned ZPMC CWI Mr. Zhong Wei and asked him the name of the ZPMC QC Inspector was responsible for monitoring welding in this location and a short time later ZPMC QC Inspector Mr. Li Ming Yang arrived. Mr. Li Ming Yang informed this QA Inspector that he has QC responsibility for monitoring welding in other areas and that does not know if any ZPMC QC Inspector had been assigned to monitoring welding in this area, but tomorrow during the dayshift he will ask the dayshift supervisor this question. Items observed on this date did not appear to fully comply with applicable contract documents.



## Summary of Conversations:

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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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