

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-012597**Date Inspected:** 07-Mar-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 and Tower**Summary of Items Observed:**

CWI Inspectors: Mr. Wu Zhi Cheng, Mr. Lv Li Qing, Mr. Liu Hua Jie and Mr. Du Zhi Qun

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

At around 1930 hours ZPMC CWI Mr. Lv Li Qing informed this QA Inspector that ZPMC workers have been performing heat straightening of OBG Traveler Rails 10TR3 PP34 through PP60 and Traveler Rails 10TR2 PP42 through PP54 in accordance with temporary heat straightening document 8140. This QA Inspector observed a copy of heat straightening document 8140 is taped to the wall near where this heat straightening is taking place and that this document is mostly written in the Chinese language and very few of the words are written in the English language. This QA Inspector did not observe any heat straightening taking place.

ZPMC CWI Mr. Lv Li Qing informed this QA Inspector that ZPMC welder Mr. Li Weiya, stencil 055482 is using shielded metal arc process to tack weld FL3 components to side plate at OBG segment 12AE near panel point 112. This QA Inspector ZPMC observed welder Mr. Li Weiya appears to be certified to make these welds.

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

This QA Inspector observed ZPMC welder Mr. Jiang Shi Zhen, stencil 048694 has recently used the shielded metal arc welding process to tack weld various floor beams, longitudinal diaphragms and other components together near panel point 117 at OBG segments 12CW. This QA Inspector observed Mr. Jiang Shi Zhen appears to be certified to make these welds. This QA Inspector did not observe this welder performing any welding. Items observed on this date appeared to generally comply with applicable contract documents.

OBG BAY 15

This QA Inspector observed ZPMC welder Mr. Hu Yanming, stencil 062092 is using shielded metal arc procedure WPS-345-SMAW-2G(2F)-Repair and WPS-345-SMAW-4G(4F)-Repair to make repair welds to various stiffener hold back welds at the south end of cross beam CB6. This QA Inspector observed the welding electrodes are being stored in a portable rod oven which is connected to an electric power cable. This QA Inspector observed one person with a torch appears to be preheating the base materials prior to commencement of welding. This QA Inspector measured a welding current of approximately 160 amps and Mr. Hu Yanming appears to be certified to make this weld. ZPMC QC Inspector Mr. Wang Jian appears to be monitoring the welding parameters and base material temperatures. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC appears to have recently removed cross beam CB5 from OBG Bay 15.

Tower Bay 10

This QA Inspector observed ZPMC welder Mr. Shi Xingyu, stencil 052930 is using shielded metal arc process procedure WPS-485-SMAW-2G(2F)-Repair to add weld material to the end of South tower lifting plate SSD1-TL5-1A/F-T-D5-9 in accordance with weld repair document TWR3083. This QA Inspector observed a welding current of approximately 260 amps and that the welding electrodes are being stored in a heated electrode storage container that is connected to an electric power supply. This QA Inspector observed ZPMC has electrical heaters to heat and maintain the base material temperature and ZPMC QC CWI Mr. Du Zhi Qun is monitoring the welding parameters. ZPMC welder Mr. Shi Xingyu 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. Zhu Cheng Dong, stencil 040582 is using shielded metal arc process procedure WPS-485-SMAW-2G(2F)-Repair to add weld material to the end of South tower lift 5 lifting plate SSD1-TL5-1A/F-T-D5-9 in accordance with weld repair document TWR3083. This QA Inspector observed ZPMC QC has recorded a welding current of 268 amps and that the welding electrodes are being stored in a heated electrode storage container that is connected to an electric power supply. This QA Inspector observed ZPMC has electrical heaters to heat and maintain the base material temperature and ZPMC QC CWI Mr. Du Zhi Qun is monitoring the welding parameters. ZPMC welder Mr. Zhu Cheng Dong 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. Shen Yun Chun, stencil 500363 is using shielded metal arc process procedure WPS-485-SMAW-2G(2F)-Repair to add weld material to the end of North tower lift 5 lifting plate NSD1-TL5-3A/F-T-D5-9 in accordance with weld repair document TWR3083. This QA Inspector observed ZPMC QC has recorded a welding current of 266 amps and that the welding electrodes are being stored in a heated

WELDING INSPECTION REPORT

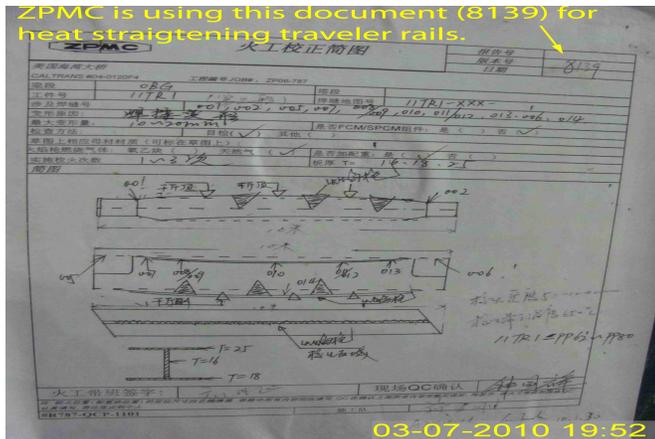
(Continued Page 3 of 4)

electrode storage container that is connected to an electric power supply. This QA Inspector observed ZPMC has electrical heaters to heat and maintain the base material temperature and ZPMC QC CWI Mr. Du Zhi Qun is monitoring the welding parameters. ZPMC welder Mr. Shen Yun Chun 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. Zhang Shi Gang, stencil 500373 is using shielded metal arc process procedure WPS-485-SMAW-2G(2F)-Repair to add weld material to the end of South tower lift 5 lifting plate SSD1-TL5-1A/F-T-D5-9 in accordance with weld repair document TWR3083. This QA Inspector observed ZPMC QC has recorded a welding current of 261 amps and that the welding electrodes are being stored in a heated electrode storage container that is connected to an electric power supply. This QA Inspector observed ZPMC has electrical heaters to heat and maintain the base material temperature and ZPMC QC CWI Mr. Du Zhi Qun is monitoring the welding parameters. ZPMC welder Mr. Zhang Shi Gang appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

Segment Trial Assembly

This QA Inspector observed no ZPMC personnel appear to be welding on Caltrans OBG segments in the Segment Assembly yard. ZPMC has one crew performing grit blasting on the interior of OBG segment 6BW near panel point 43 and another crew is performing grit blasting on the interior of OBG segment 5BE. ZPMC has workers applying paint to segment 5BE floor beam FL3 exterior surfaces near where cross beam CB4 will be attached. ZPMC has workers using sandpaper to prepare OBG segment 5BW floor beam FL3 exterior surfaces near where cross beam CB4 will be attached. See the photograph below for additional information.



WELDING INSPECTION REPORT

(Continued Page 4 of 4)



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
