

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-019440**Date Inspected:** 06-Jan-2011**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. Yu Jiao

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.

OBG Bay 14

This QA Inspector observed ZPMC welder Mr. Zhao Guanglin, stencil 044779 used shielded metal arc welding procedure specification WPS-B-P-2214-TC-U4B-FCM to make OBG segment 13AE weld SEG3007AB-055.

This QA Inspector observed ZPMC has recorded a welding current of 150 amps, 25.6 volts and a welding travels speed of 115mm per minute. This QA Inspector observed Mr. Zhao Guanglin 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. Kuai Wenshan, stencil 054013 used shielded metal arc welding procedure specification WPS-B-P-2214-TC-U4B-FCM to make OBG segment 13AE weld SEG3007AB-043.

This QA Inspector observed ZPMC has recorded a welding current of 152 amps, 25.5 volts and a welding travels speed of 117mm per minute. This QA Inspector observed Mr. Kuai Wenshan 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. Yang Yunfeng, stencil 215553 used shielded metal arc welding

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procedure WPS-345-SMAW-2G(2F)-FCM-Repair-1 to make a weld repair of ultrasonic rejections to OBG segment 13AE weld SEG3007AT-082. ZPMC had issued weld repair document B-WR-19145 that documents the repair of this weld. This QA Inspector observed ZPMC QC had recorded a welding current of 150 amps. Mr. Yang Yunfeng 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. Wang Zhengbin, stencil 216086 used shielded metal arc welding procedure WPS-345-SMAW-2G(2F)-FCM-Repair-1 to make a weld repair of ultrasonic rejections to OBG segment 13AE weld SEG3007AT-069. ZPMC had issued weld repair document B-WR-19148 that documents the repair of this weld. This QA Inspector observed ZPMC QC has recorded a welding current of 168 amps and Mr. Wang Zhengbin 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. Wang Jinjiu stencil 043661 used shielded metal arc welding procedure specification WPS-345-SMAW-3G(3F)-FCM-Repair-1 to make OBG segment 14E weld repair SEG3019R-133. This QA Inspector observed ZPMC had recorded a welding current of 156 amps and Mr. Wang Jinjiu appeared to be certified to make this weld. This weld repair was the result of ultrasonic rejections and was documented on critical weld repair BCWR-2670. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Ni Lei Jiang stencil 037723 used shielded metal arc welding procedure specification WPS-B-P-2114-TC-U4B-FCM-1 to perform weld SEG3019AL-003. This QA Inspector measured a welding current of approximately 170 amps and the base materials had been preheated with electric heating elements. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Cao Xinglong, stencil 069683 used shielded metal arc welding procedure specification WPS-B-P-2114-TC-U4B-FCM-1 to perform weld SEG3019AL-002. This QA Inspector measured a welding current of approximately 160 amps and the base materials had been preheated with electric heating elements. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Wei Li stencil 070008 used shielded metal arc welding procedure specification WPS-345-SMAW-1G(1F)-FCM-Repair-1 to make OBG segment 14E weld repair SEG3007N-002. This QA Inspector observed ZPMC had recorded a welding current of 165 amps, 24.8 volts and welding travel speed of 120mm per minute. This QA Inspector measured a welding current of approximately 155 amps and Mr. Wang Wei Li appeared to be certified to make this weld. This weld repair was the result of ultrasonic rejections and was documented on weld repair B-WR-19705. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Jian Zhou, stencil 067571 used shielded metal arc welding procedure specification WPS-345-SMAW-4G(4F)-FCM-Repair-1 to make OBG segment 13AE weld repair SEG3007N-002. This QA Inspector observed ZPMC had recorded a welding current of 165 amps, 24.8 volts and welding travel speed of 120mm per minute. This QA Inspector measured a welding current of approximately 160 amps and Mr. Jian Zhou appeared to be certified to make this weld. This weld repair was the result of ultrasonic rejections and was documented on weld repair B-WR-19784. Items observed on this date appeared to generally

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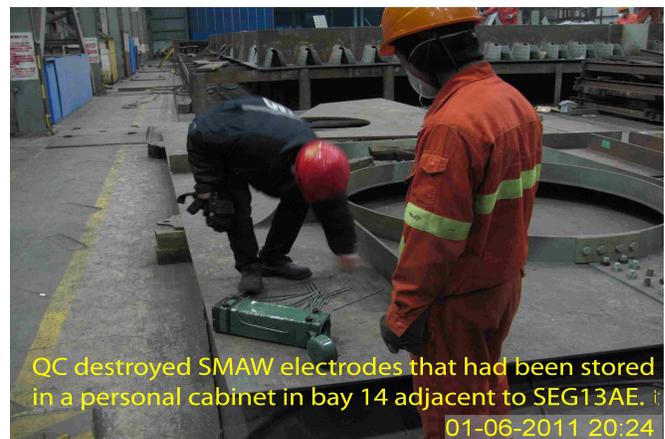
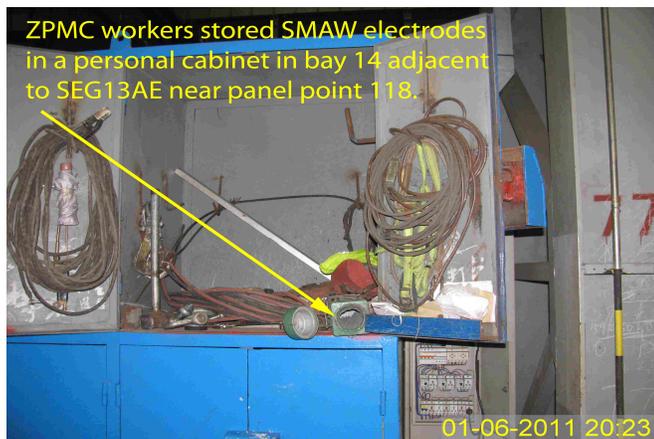
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comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Li Yong Shui, stencil 067656 used shielded metal arc welding procedure specification WPS-B-P-2214-TC-Y4B-FCM-1 to make OBG segment 13CE weld SEG3011J-430. This QA Inspector observed measured a welding current of approximately 170 amps and Mr. Li Yong Shui appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

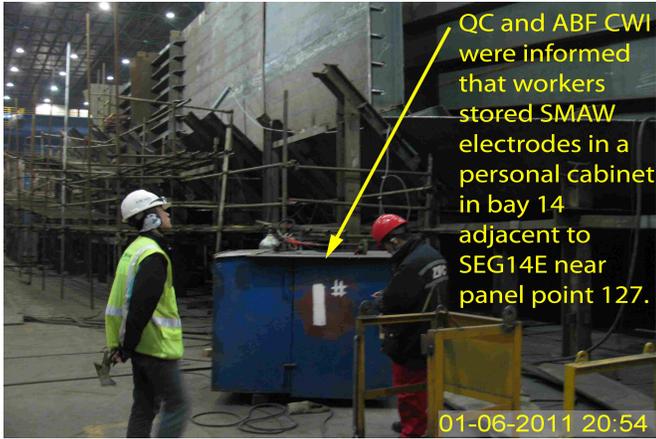
This QA Inspector observed ZPMC welder Mr. Fong Youjun stencil 066416 used shielded metal arc welding procedure specification WPS-345-SMAW-1G(1F)-FCM-Repair-1 to make OBG segment 13AE weld repair SEG3007Y-373. This QA Inspector observed ZPMC had recorded a welding current of 187 amps, 25.2 volts and welding travel speed of 112mm per minute. This QA Inspector measured a welding current of approximately 187 amps and Mr. Fong Youjun appeared to be certified to make this weld. This weld repair was the result of ultrasonic rejections and was documented on weld repair B-WR-19266. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC workers stored shielded metal arc welding (SMAW) electrodes in personal tool lockers located adjacent to OBG segments 13AE and 14E. The 13AE locker near PP118 contained one rod oven storage container that had approximately fifteen (15) SMAW electrodes inside. The segment 14E locker near PP127 contained three rod oven storage containers that each had approximately twenty (20) SMAW electrodes inside. Each of these SMAW electrodes was stored in unheated rod oven storage containers and the rod oven storage containers were not connected to any electrical power cords. This QA Inspector informed ZPMC QC Inspectors who removed and discarded the electrodes. This QA Inspector informed ABF CWI Mr. Yu Jiao and ZPMC QC Inspector Mr. Zhong Guo Hui that this QA Inspector would issue a TL-15 incident report to document the improperly stored welding electrodes. See the photographs below for additional information.



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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 James Devey +8615000026784, who represents the Office of Structural Materials for your project.

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