

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-020742**Date Inspected:** 18-Feb-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. Bao Qian

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

This QA Inspector observed ZPMC welder Mr. Yang Yunfeng, stencil 215553 used shielded metal arc welding procedure WPS-345-SMAW-2G(2F)-FCM-Repair to make critical weld repair of ultrasonic rejections to OBG segment 14E weld SEG3019AA-025. ZPMC QC informed this QA Inspector that critical weld repair document B-CWR-2755 documents this weld repair. This QA Inspector measured a welding current of approximately 190 amps and 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. Yang Gencheng, stencil 066418 used shielded metal arc welding procedure WPS-345-SMAW-2G(2F)-FCM-Repair to make critical weld repair of ultrasonic rejections to OBG segment 14E weld SEG3019Z-012. ZPMC QC informed this QA Inspector that critical weld repair document B-CWR-2755 documents this weld repair. This QA Inspector measured a welding current of approximately 190 amps and Mr. Yang Gencheng appeared to be certified to make this weld. Items observed on this date appeared to

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generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Li Yong Shui, stencil 067656 used shielded metal arc welding procedure WPS-345-SMAW-2G(2F)-FCM-Repair to make critical weld repair of ultrasonic rejections to OBG segment 14E welds SEG3019Z-014 and 015. ZPMC QC informed this QA Inspector that critical weld repair document B-CWR-2755 documents these weld repairs. This QA Inspector observed Mr. Li Yong Shui appeared to be certified to make these welds. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Luo Xuanping, stencil 067610 used shielded metal arc welding procedure WPS-B-P-2114-FCM-1 to make OBG segment 13AE weld SEG3019BB-115. This QA Inspector observed a welding current of approximately 180 amps. This QA Inspector observed Mr. Luo Xuanping 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. Niu Duojun, stencil 037932 used shielded metal arc welding procedure WPS-B-P-2214-TC-U5B-FCM to make OBG segment 14E weld SEG3019Z-007. This QA Inspector measured a welding current of approximately 170 amps. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Ye Bing, stencil 066733 used flux cored welding procedure specification WPS-B-T-2233-ESAB to perform OBG segment 14E welds SEG3019L-137,142 and 149. This QA Inspector observed Mr. Ye Bing appeared to be certified to make these welds. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Du Hengyou, stencil 037743 used shielded metal arc welding procedure WPS-345-SMAW-3G(3F)-Repair-1 to make a repair of ultrasonic rejections to OBG segment 13AE weld SEG3007AB-051. ZPMC QC informed this QA Inspector that weld repair document B-WR-20166 documents this weld repair. This QA Inspector observed a welding current of approximately 170 amps. Items observed on this date appeared to generally comply with applicable contract documents.

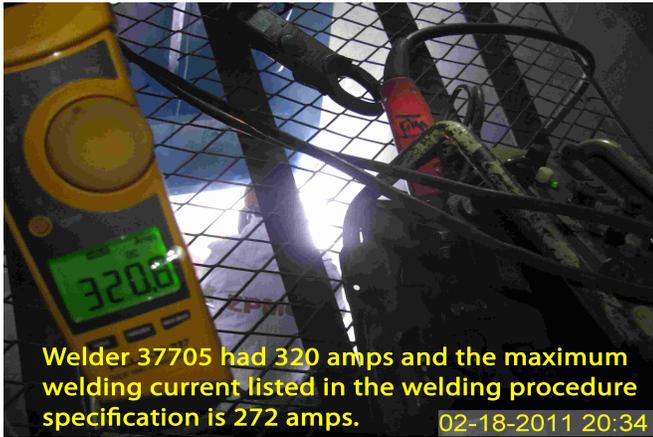
This QA Inspector observed ZPMC welder Mr. Wei Hengbin, stencil 068924 used shielded metal arc welding procedure specification WPS-B-P-2213-TC-U5B-FCM to make OBG segment 13AE weld SEG3007G-072. This QA Inspector observed a welding current of approximately 160 amps, the base materials appear to have been preheated with electric heating elements and Mr. Wei Hengbin 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. Huang Hongpei, stencil 037705 used flux cored welding procedure WPS-B-T-2233-ESAB to make OBG segment 13AE weld SEG3007AV-039. This QA Inspector observed a welding current of approximately 310 amps and 27.0 volts. The maximum welding current listed in the welding procedure specification is 272 amps and Mr. Huang Hongpei had a welding current that was approximately 38 amps above this maximum limit. This QA Inspector showed ZPMC QC Inspector Mr. Zhan Hai Feng the welding meter and he confirmed the high welding current prior to adjusting the welding machine to have a current of approximately 270 amps. Following adjustment of the welding machine, items observed on this date appeared to

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generally comply with applicable contract documents. See the photograph below for additional information.



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:	Riley,Ken	QA Reviewer
