

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-019444**Date Inspected:** 09-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. Yang Yunfeng, stencil 215553 used shielded metal arc welding procedure WPS-345-SMAW-2G(2F)-FCM-Repair to make a weld repair of ultrasonic rejections to OBG segment 13AE weld SEG3007AT-095. ZPMC had issued weld repair document B-WR-19146 that documents the repair of this weld. This QA Inspector observed a welding current of approximately 240 amps. Mr. Yang Yunfeng used an electric grinder to clean the weld surfaces, the base material were preheated with electric heaters and he appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents. See the photograph below for additional information.

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 measured a welding current of approximately 240 amps and Mr. Wang

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

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 personnel performed flame straightening of OBG segment 13BE welds DP3104-001-244,245,251. ZPMC QC Inspector Mr. Zhong Guo Hui informed this QA Inspector that this flame straightening is being performed as directed by ZPMC document #9986. See the photograph below for additional information.

This QA Inspector observed ZPMC welder Mr. Chen Chuanzong, stencil 044824 used ESAB flux cored welding procedure WPS-345-FCAW-2G(2F)-ESAB-repair to make a weld repair of ultrasonic rejections to OBG segment 14E weld SEG3019D-001-323. ZPMC had issued critical weld repair document B-CWR-2678 that documents the repair of this weld. This QA Inspector observed a welding current of approximately 260 amps, and 25 volts. The base material was preheated with electric heaters, an electric grinder was used to clean the weld surfaces, and Mr. Chen Chuanzong 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 had preheated and was preparing to perform FCAW ESAB segment 14E floor beam FB3266 welds SEG3019Q-060, 057 etc. (9 total). This QA Inspector observed the weld joints had been backgouged and each of the carbon arc weld grooves had not all been ground to a bright surface as required by AWS D1.5 paragraph 3.2.6 which states: "Air carbon arc gouged surfaces shall be ground to bright metal". This QA Inspector showed ABF CWI these weld joint surfaces and he said no welding would be performed this shift and dayshift workers will grind these weld joints prior to performing any welding. See the photographs below for additional information.

This QA Inspector observed ZPMC welder Mr. Li Yong Shui, stencil 067656 used shielded metal arc welding procedure WPS-345-SMAW-3G(3F)-FCM-Repair to make critical weld repair of ultrasonic rejections to OBG segment 14E weld SEG3019L-1-088. ZPMC had issued critical weld repair document B-CWR-2644 that documents the repair of this weld. This QA Inspector measured a welding current of approximately 150 amps, the base materials were preheated with electric heaters 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. Ni Lei Jiang stencil 037723 used shielded metal arc welding procedure specification WPS-B-P-2114-TC-U4B-FCM-1 to perform OBG segment 14E weld SEG3019AL-009. This QA Inspector measured a welding current of approximately 150 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.

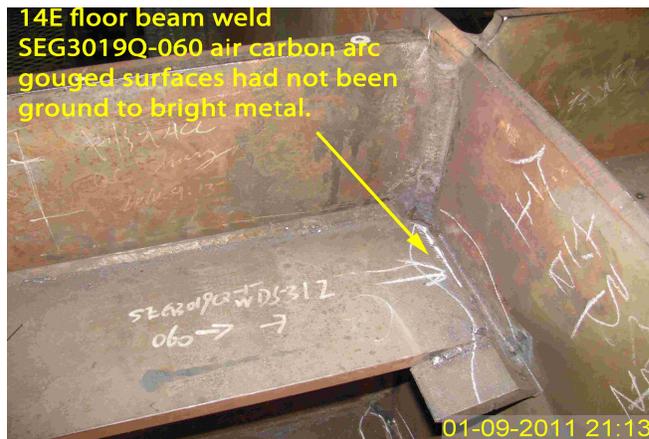
This QA Inspector observed ZPMC welder Mr. Cao Xinglong, stencil 069683 used shielded metal arc welding procedure specification WPS-B-P-2114-TC-U4B-FCM-1 to perform OBG segment 14E weld SEG3019AL-008. This QA Inspector measured a welding current of approximately 160 amps and the base materials had been 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. Fong Youjun stencil 066416 used shielded metal arc welding

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

procedure specification WPS-345-SMAW-1G(1F)-FCM-Repair to make OBG segment 13AE weld repair SEG3007N-216. This QA Inspector measured a welding current of approximately 190 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-19476. Items observed on this date appeared to generally comply with applicable contract documents.



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