

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-022698**Date Inspected:** 03-Apr-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. Lv Li Qing

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. Ye Bing, stencil 066733 used flux cored welding procedure specification WPS-B-T-2233-ESAB to perform OBG segment 13BE weld SEG3011D-111. This QA Inspector observed a welding current of approximately 230 amperes (amps) and 26.0 volts. This QA Inspector observed Mr. Ye Bing appeared to be certified to make this weld and the base materials had been preheated with torch prior to welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Li, stencil 044772 used shielded metal arc welding procedure specification WPS-B-P-2214-T-U4B-FCM-1 to make OBG segment 14E weld SEG3019U-001. This QA Inspector observed a welding current of approximately 150 amps, the base material had been preheated with electric heaters and Mr. Wang Li appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

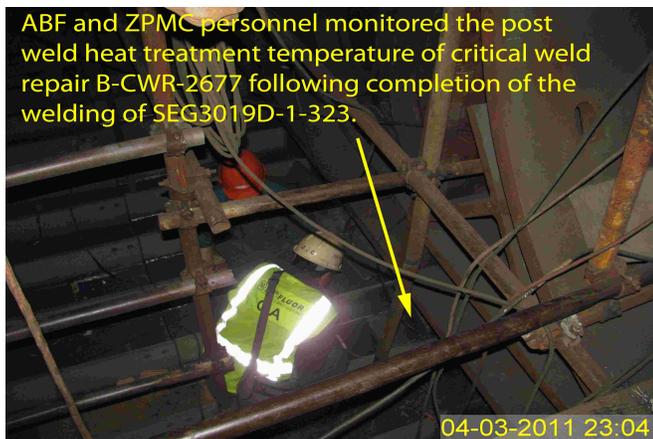
WELDING INSPECTION REPORT

(Continued Page 2 of 3)

This QA Inspector observed ZPMC welder Mr. Wang Changfa, stencil 058102 used shielded metal arc welding procedure specification WPS-B-P-2214-T-U4B-FCM-1 to make OBG segment 14E weld SEG3019U-001. This QA Inspector observed a welding current of approximately 175 amps, the base material had been preheated with electric heaters and Mr. Wang Changfa 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 procedure WPS-345-SMAW-2G(2F)-FCM-Repair -1 to make critical weld repairs to OBG segment 14E weld SEG3019D-1-323. ZPMC QC informed this QA Inspector that weld repair document B-CWR-2677 documents this weld had been ultrasonically rejected. This QA Inspector observed a welding current of approximately 240 amps, the base materials were preheated with electrical heaters to a minimum of 200 degrees Celsius prior to welding and Mr. Yunfeng appeared to be certified to make these welds. Following completion of this weld repair this QA Inspector observed ZPMC and ABF personnel using 200 degree temperature indicating crayons to confirm the base materials were post weld heat treated as required by the critical weld repair document. Later in the shift Mr. Yang Yunfeng used WPS-345-SMAW-4G(4F)-FCM-Repair -1 to make weld repairs to OBG segment 14E welds SEG3019AP-029, 033, 037 and 041. ZPMC QC informed this QA Inspector that weld repair document B-WR-20478 documents these welds had been ultrasonically rejected. This QA Inspector observed a welding current of approximately 160 amps, the base materials were preheated with a torch and Mr. Wang Zhengbin appeared to be certified to make these welds. Items observed on this date appeared to generally comply with applicable contract documents. See the photographs below for additional information.

This QA Inspector observed ZPMC welder Mr. Wang Zhengbin, stencil 216086 used shielded metal arc welding procedure WPS-345-SMAW-4G(4F)-FCM-Repair -1 to make critical weld repairs to OBG segment 14E welds SEG3019AQ-039, 043, 046 and 051. ZPMC QC informed this QA Inspector that weld repair document B-WR-20478 documents these welds had been ultrasonically rejected. This QA Inspector observed a welding current of approximately 160 amps, the base materials were preheated with electrical heaters to a minimum of 200 degrees Celsius prior to welding and Mr. Wang Zhengbin appeared to be certified to make these welds. Items observed on this date appeared to generally comply with applicable contract documents.



WELDING INSPECTION REPORT

(Continued Page 3 of 3)

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
