

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-009886**Date Inspected:** 10-Oct-2009**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 Fabrication**Summary of Items Observed:**

CWI Inspectors: Mr. Guy Yan Fei, Mr. Li Yang, Mr. Shen Fu You

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 5

This QA Inspector observed ZPMC welder Mr. Zheng Hongyan stencil 203176, is using shielded metal welding procedure WPS-B-P-2112B-U2 to make OBG tack weld between traveler rail 10TR3-30 and rib and flange. This QA Inspector observed a welding current of approximately 125 amps and Mr. Zheng Hongyan is certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Ms. Song Aiyong, stencil 215689 is using flux cored welding process WPS-B-T-2132-3 to tack weld cantilever beam internal stiffener plates to the top plate. The QA Inspector observed a welding current of approximately 275 amps and 24.0 volts. This QA Inspector asked ZPMC QC representative Mr. Wang Liang where a copy of the WPS is located and he showed this QA Inspector a copy of the WPS that is taped to one of the welds in OBG Bay 5. This QA Inspector observed the WPS lists that the acceptable voltage range is 27.3 volts and 31.4 volts and Ms. Song Aiyong is welding with a voltage that is approximately 2.3 volts below the low limit. This QA Inspector informed ZPMC QC representative Mr. Wang

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Liang that the welding voltage is low and he adjusted the welding voltage as he observed the voltage reading on this QA Inspector's welding amp/voltage meter. This QA Inspector asked ZPMC QC representative Mr. Wang Liang if he has a welding amp/voltage meter in bay 5, and he pointed toward the front end of OBG Bay 5. When this QA Inspector arrived at the front of OBG Bay 5 ZPMC QC representative Mr. Wang Liang talked to one of the supervisors and then he indicated to this QA Inspector that he needs to go to the QA office to obtain a welding voltage meter. This QA Inspector observed Ms. Song Aiying is certified to make this weld. Items observed on this date do not appear to fully comply with applicable contract documents.

OBG BAY 9

This QA Inspector observed ZPMC welder Mr. Xu Guo Xin, stencil 059443 is using flux cored welding procedure WPS-B-T-2133 to make deck plate weld DP3069-001-140. This weld attaches a stiffener plate to the inside of closed rib for OBG deck panel DP3069-001. This QA Inspector observed the base material had been cleaned of oxides where the stiffener welds are to be installed. This QA Inspector observed a welding current of approximately 200 amps 25.0 volts and Mr. Xu Guo Xin is certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Bay 13

This QA Inspector observed ZPMC welder Ms. Gao Min, stencil 050988 is using welding procedure specification WPS-B-T-2231-B-U2-F to make flux cored weld SEG068A-002. This QA Inspector observed Ms. Gao Min is certified to make this weld. This QA Inspector observed a welding current of approximately 300 amps and 28.5 volts. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Bay 14

This QA Inspector observed ZPMC welder Mr. Yun Chuan Shan, stencil 050316 has recently completed using flux cored welding process WPS-B-T-2233-TC-U4b-F to make OBG weld SEG063A-015 at OBG segment 10CW.

This QA Inspector observed ZPMC QC Inspector Mr. Xu Tao has recorded a welding current of 168 amps and 25.0 volts. This QA Inspector verified Mr. Yun Chuan Shan is certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder stencil 215553 has recently completed using flux cored welding process WPS-B-T-2233-TC-U4b-F to make OBG weld SEG052D-018. This QA Inspector observed ZPMC QC Inspector Mr. Xu Tao has recorded a welding current of 171 amps and 25.0 volts. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Zhenbing, stencil 216086 has recently used shielded metal arc welding procedure WPS-B-P-4213-TC-U4B-2 to deposit shielded metal arc weld SEG052D-018. The QA Inspector observed ZPMC QC representative Mr. Geng Wei has recorded a welding current of 168 amps. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Wei, stencil 205097 is using shielded metal arc welding procedure specification WPS-B-P-2113 to tack weld diaphragm plate LD004 to the floor beam at panel point 82.

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This QA Inspector observed a welding current of approximately 140 amps and Mr. Wang Wei is certified to make this weld. This QA Inspector observed the shielded metal arc welding electrodes are being stored in an electrically heated electrode storage container which is warm to the touch and it did not appear to be connected to a power supply cable. Mr. Wang Wei observed this QA Inspector monitoring the electrode storage container temperature and Mr. Wang Wei then connected the electrode storage container to an electrical power supply. 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 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
