

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-009033**Date Inspected:** 09-Sep-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. Li Zhi Jiang, Mr. Guo Yan Fei, Mr. Li Yan

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 2

This QA Inspector observed ZPMC welder Ms. Ma Ying stencil 045270, is using welding procedure specification WPS-B-T-2221-B-L2C-S-2 to make submerged arc groove weld SEG059*-006. This QA Inspector observed ZPMC Quality Control personnel monitoring this welding and this QA Inspector observed a welding current of approximately 530 amps and 29.0 volts and Ms. Ma Ying 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. Wang Chaili stencil 045203 is using flux cored welding procedure WPS-B-T-2132-3 to make fillet weld FB3020-001-011 in the 2F position. This QA Inspector measured a welding current of approximately 310 amps and 30.6volts. This QA Inspector observed that Ms. Wang Chaili is certified to make this weld and Quality Control (QC) personnel are monitoring this welding. Items observed by this QA Inspector appear to comply with project specifications.

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OBG Bay 5

The QA Inspector observed ZPMC welder Mr. Si Gaofeng, stencil 204342 had using welding procedure WPS-B-T-2231-TC-U4C-F-1 to make cantilever beam flux cored weld BK001-020-1. The QA Inspector observed ZPMC QC personnel have recorded a welding current of 203 amps and 25 volts. Items observed by this QA Inspector appear to comply with project specifications.

OBG Bay 9

This QA Inspector observed ZPMC welder Mr. Xu Guoyin, stencil 059443, is using welding procedure WPS-B-T-2133 to make flux cored weld DP3010-001-044. This weld attaches a stiffener plate to the inside of closed rib for OBG deck panel DP3010-001. 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 25.6 volts and Mr. Xu Guoyin 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 Mr. Xiang Jie, stencil 59378 is using flux cored welding procedure WPS-B-T-2133 to make U OBG deck plate U rib splice weld DP3002-001-044. This QA Inspector observed the base material had been cleaned of oxides and the weld joint appears to be in compliance with the WPS requirements. This QA Inspector measured a welding current of approximately 190 amps and 22.0 volts. This QA Inspector observed WPS-B-T-2133 lists a voltage of range of 23.9 to 27.5 volts and Mr. Jie appears to have a welding voltage that is approximately 2 volts below this minimum. This QA Inspector informed ZPMC CWI Mr. Guo Yan Fei that the voltage appears to be below the minimum listed in the welding procedure and after he used his amperage / voltage measurement gauge he adjusted the welding machine to approximately 200 amps and 25 volts. Mr. Guo Yan Fei said he had last confirmed the welding current and voltage approximately one hour ago and that the welding machine knob possibly had been repositioned when the welding machine had been moved. This QA Inspector observed Mr. Xiang Jie is certified to make this weld. Items observed by this QA Inspector do not appear to be fully progressing in compliance with project specifications.

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
