

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-001868**Date Inspected:** 24-Mar-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1830**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 730**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:** Tower and OBG Fabrication**Summary of Items Observed:**

Caltrans 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. The QA Inspector observed the following:

Orthotropic Box Girder (OBG) and Tower Mock Up:

CWI Inspector: Sun Wei

Bay 1

The QA Inspector observed ZPMC personnel performing welding of Deck Panel DP432-001 closed ribs and the QA Inspector observed the following submerged arc welding measurements:

Closed rib U69 weld #3 welder Mr. Zhao Chen-Shuang, stencil 59480 has a welding current of 680 amps and 25.0 volts; closed rib U69; weld #4 welder Mr. Song-Yen Shu, stencil 59421 has a welding current of 685 amps and 25.0 volts; closed rib U72 weld #7 welder Mr. Jiang Ting Guang, stencil 62265 has a welding current of 680 amps and 25.0 volts; closed rib U72 weld #8 welder Mr. Xu Guo Yin, stencil 59443 has a welding current of 685 amps and 25.4 volts. The ambient steel temperature is approximately 19°C and the welding travel speed is approximately 510 mm per minute. Items observed by the QA Inspector appear to comply with project specifications.

WELDING INSPECTION REPORT

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The QA Inspector observed ZPMC personnel performing welding of Deck Panel DP079-001 closed ribs and the QA Inspector observed the following submerged arc welding measurements:

Closed rib U88 weld #1 welder Mr. Xiang Huan Feng, stencil 59416 has a welding current of 675 amps and 25.0 volts; closed rib U88; weld #2 welder Mr. Xiang Jie, stencil 59378 has a welding current of 680 amps and 25.1 volts; closed rib U154 weld #5 welder Mr. Gao Xia Dong, stencil 59361 has a welding current of 680 amps and 24.9 volts; closed rib U154 weld #6 welder Mr. Zhang Shao Hui, stencil 59403 has a welding current of 680 amps and 25.0 volts; closed rib U137 weld #9 welder Mr. Chen Jie, stencil 59468 has a welding current of 680 amps and 25.0 volts; closed rib U137 weld #10 welder Mr. Feng Chuan Hong, stencil 59371 has a welding current of 680 amps and 25.0 volts. The ambient steel temperature is approximately 19°C and the welding travel speed is approximately 520 mm per minute. Items observed by the QA Inspector appear to comply with project specifications.

The QA Inspector performed random visual inspections of deck plate DP076-001 closed rib welds # 4, 5, 6, 7, 8, 9 and 10. The QA Inspector used a yellow marker to identify locations on these welds that have various degrees of weld insufficient fill, weld overlap, insufficient fusion and other similar weld conditions. The results of these inspections were documented on forms titled: “Caltrans QA Visual Weld Inspection Report for the OBG Deck Panels”. These completed forms will be submitted to engineering for review.



Summary of Conversations:

See above for summary of conversations.

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 Patrick Lowey (858) 344-2712, who represents the Office of Structural Materials for your project.

Inspected By: Dawson,Paul

Quality Assurance Inspector

Reviewed By: Hager,Craig

QA Reviewer