

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-001252**Date Inspected:** 10-Jan-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1000**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**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:**

The Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Orthotropic Box Girders (OBG).

Bay 2 Tower Mock Up:

89M Diaphragm/Skin Plate Assembly:

The QA Inspector utilized the Magnetic Particle Testing (MT) Method to perform a random 10% inspection of the root passes in Weld Joint (WJ) Numbers MUB-MA21H/J-14, 15, 16 and 17 of Skin Plates C and D to the 89M Diaphragm. There were no apparent indications. The attached photograph provides additional detail.

114M Temporary Diaphragm/Skin Plate Assembly:

The QA Inspector utilized the MT Method to perform a random 10% inspection of the cover passes in WJ's MUSC-MA107B/C-2B (Skin Plates D/C) and 3B (Skin Plates B/C) in the 114M Skin Plate to Temporary Diaphragm Assembly. There were no apparent indications.

Bay 3 OBG:

The QA Inspector randomly observed ZPMC personnel performing heat straightening operations on WJ BP003-01-001 per ZPMC HSR1(B)-160. The attached photograph provides additional detail.

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The QA Inspector randomly observed ZPMC welder Liu Zhihong ID Number 062447, utilizing the Flux Cored Arc Welding (FCAW) Process with ZPMC approved Weld Procedure Specification (WPS) WPS-B-T-2132 in the 2F position to tack weld T-Ribs to Bottom Plate BP15/PL45A. The QA Inspector randomly observed ZPMC CWI Hu Wei Qing, monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: welding amperage 281 amps, welding voltage 29 volts with a travel speed of 521 millimeters (mm) per minute. The weld parameters appeared to comply with contract requirements. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder He Yumei ID Number 048625, utilizing the FCAW Process with ZPMC approved WPS WPS-B-T-2132 in the 2F position to tack weld T-Ribs to Bottom Plate BP13/PL43A. The QA Inspector randomly observed ZPMC CWI Hu Wei Qing, monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: welding amperage 270 amps, welding voltage 28.2 volts with a travel speed of 480 mm per minute. The weld parameters appeared to comply with contract requirements. The weld parameters appeared to comply with contract requirements.

Bay 7 OBG:

The QA Inspector randomly observed ZPMC welder Huang Xinlan ID Number 044780, utilizing the Submerged Arc Welding (SAW) Process with ZPMC approved WPS WPS-B-T-2221-B-L2c-S-1 in the 1G position to weld the fill and cover passes Floor Beam Web FB026-02 on WJ FBO022-02-079. The QA Inspector randomly observed ZPMC CWI Cui Yi Ru, monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: welding amperage 530 amps, welding voltage 30 volts with a travel speed of 440 mm per minute. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

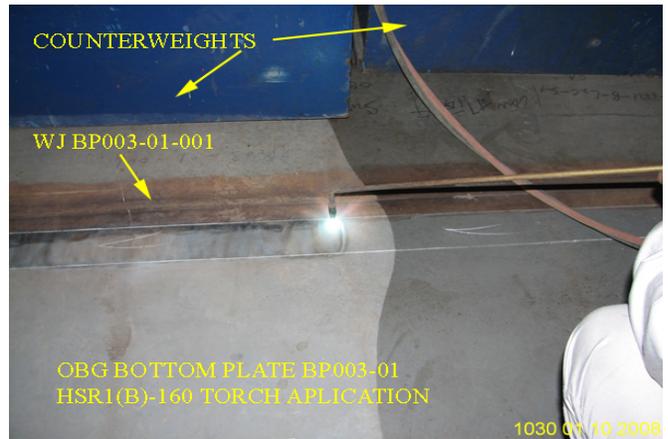
The QA Inspector randomly observed ZPMC welder Hong Shuili ID Number 044815, utilizing the Flux Cored Arc Welding (FCAW) Process with ZPMC approved WPS WPS-B-T-2232-TC-U4b-F-1 in the 2G position, to weld Flange Plate X7M to Floor Beam Web FB008-06 on WJ FBO08-06-043. The QA Inspector randomly observed ZPMC CWI Cui Yi Ru, monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: welding amperage 297 amps, welding voltage 29.3 volts with a travel speed of 543 mm per minute. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welder Yuan Wensong ID Number 055491, utilizing the FCAW Process with ZPMC approved WPS WPS-B-T-2132-3 in the 2F position, to weld Flange Plate X7E to Floor Beam Web FB0016-02 on WJ FBO16-02-003. The QA Inspector randomly observed ZPMC CWI Cui Yi Ru, monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: welding amperage 310 amps, welding voltage 29.5 volts with a travel speed of 448 mm per minute. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC Non-Destructive Technicians E Shui Qing, Xue Haiyong and Wu Yong Jun utilizing the Ultrasonic Testing (UT) Method to examine Floor Beam Sub-Assembly WJ's FB018-01-078, 079, 081 and 101; FB026-01-078, 079, 081 and 101 and FB025-078, 079, 081 and 101.

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Summary of Conversations:

There were no relevant 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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By: Franco,Charlie

Quality Assurance Inspector

Reviewed By: Cochran,Jim

QA Reviewer