

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-010012**Date Inspected:** 05-Nov-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. Shen Fu You, Mr. Lv Li Qing, Mr. Li Ming

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 13

This QA Inspector observed ZPMC welder Ms. Xie Jinxia, stencil 048038 is using flux cored welding procedure WPS-B-T-2232-TC-U4b-F to make OBG corner assembly weld CA084-004. This QA Inspector observed that Ms. Xie Jinxia appears to be certified to make this weld and the electrode storage oven feels hot to the touch and appears to be connected to an electrical power cord. This QA Inspector observed a welding current of 310 amps and 32 volts. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Yuan Wensong, stencil 055491 has been using welding procedure WPS-B-P-2233-TC-U4b-F to make corner assembly flux cored weld CS4-PP098-090. This QA Inspector observed ZPMC QC Inspector Mr. Guo Xing Hui has recorded a welding current of 313 amps and 25.5 volts. This QA Inspector observed that Mr. Yuan Wensong appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

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This QA Inspector observed ZPMC welder Mr. Tu Zhi Wu, stencil 214945 is using flux cored welding procedure WPS-B-T-2233-B-U2-F to make OBG weld SSD18-PP100-014. This QA Inspector observed a welding current of approximately 220 amps and 23.3 volts. This QA Inspector verified Mr. Tu Zhi Wu appears 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. Zhao Jibo, stencil 055564 is using flux cored welding procedure WPS-B-T-2233-B-U2-F to make OBG weld SSD18-PP100-133. This QA Inspector observed a welding current of approximately 215 amps and 27.0 volts. This QA Inspector observed that Mr. Zhao Jibo is certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Bay 14

This QA Inspector observed ZPMC welder Ms. Li Jiao, stencil 049861 is using shielded metal arc welding procedure specification WPS-B-P-2211 to make tack weld SEG070*-006 which attaches side plate SP429-001 to SP456-001. This QA Inspector observed a welding current of approximately 150 amps. 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. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Ms. Wang Lanying, stencil 045265 using submerged arc welding procedure specification WPS-B-T-2221-B-L2C-S-2 to make a groove weld that joins BP2032-001 to BP3022-001. This QA Inspector observed a welding current of approximately 600 amps and 31.1 volts. Items observed on this date appeared to generally comply with applicable contract documents.

Segment 7BW, located behind OBG Bay 13

This QA Inspector observed ZPMC welder Mr. Yun Chuan Shan, stencil 050316 is using flux cored welding process to make repairs to OBG weld SSD11-PP051-003. This QA Inspector observed a welding current of approximately 260 amps. This QA Inspector observed that there are approximately twenty areas of this weld that have been ground and several of these gouged areas are approximately 12 mm deep which classifies these areas as "Critical Weld Repairs". This QA Inspector did not initially observe any QA Inspectors and after approximately 30 minutes ZPMC QC Inspector Mr. Wang Xiang Pin arrived and this QA Inspector asked him if ZPMC has submitted critical weld repair documentation for these weld repairs. Mr. Wang Xiang Pin does not appear to understand the English language and when ZPMC CWI Mr. Shen Fu You arrived and Mr. Shen Fu You informed this QA Inspector that he does not know if a CWR has been issued for these repairs, but that during tomorrow's dayshift, he will find out if a CWR has been issued. 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.

OBG Bay 10

This QA Inspector observed ZPMC welder Mr. Bi Chun stencil 040343 is using flux cored welding procedure WPS B-T-2232-TC-U4-F to make north tower lift 4 weld NSTL4-3B/L-3A between skin B and skin C. This QA Inspector verified Mr. Bi Chun appears to be certified to make this weld. This QA Inspector observed a welding current of approximately 300 amps and 31.0 volts. Items observed by this QA Inspector appear to be progressing

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in compliance with project specifications.

This QA Inspector observed ZPMC welder Ms. Ye Xulan stencil 040343 is using shielded metal arc welding procedure WPS-B-P-2212-TC-U5 to make north tower lift 4 weld NSTL4-3B/L-5A between skin C and skin D in the overhead position. This QA Inspector verified Ms. Ye Xulan appears to be is certified to make this weld. This QA Inspector observed a welding current of approximately 300 amps and 31.0 volts. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

This QA Inspector observed four ZPMC welder's stencils 052096, 053116, 054069 and 057244 using flux cored welding procedure WPS-345-FCAW-3G/3F-Repair to add buttering welds to the bottom end of various north tower lift 1 skin plates and stiffener plates. This QA Inspector performed random welding voltage and amperage measurements and determined that items observed by this QA Inspector appear to be 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
