

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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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-009288**Date Inspected:** 02-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 Components**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector George Goulet was present during the times noted above for observations relative to the work being performed.

Bay 11

This QA Inspector, George Goulet, proceeded to Bay 11 in response to ZPMC Inspection Notification # 4337 for MT inspection of the following:

This QA Inspector performed random VT of the area previously tested and accepted by ZPMC Quality Control personnel. The member is identified as OBG FB3030-002. The weld designations reviewed were 003, 005, 051~054, 078, 091~094. This QA Inspector observed approximately 1.8mm of undercut at weld 078 and overlap in weld 093. This QA Inspector rejected the welds on this member on the basis of VT and terminated the inspection of this member and did not perform MT.

This QA Inspector performed random VT and then MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector, George Goulet, generated an MT report for this date. The member is identified as OBG FB3065 -001. The weld designations reviewed were 003, 005, 051~054, 091~094.

This QA Inspector performed random VT and then MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector, George Goulet, generated an MT report for this date. The member is identified as OBG FB3029-001. The weld designations reviewed were 003, 005,

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051~054, 091~094.

This QA Inspector performed random VT and then MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector, George Goulet, generated an MT report for this date. The member is identified as OBG FB3065-003. The weld designations reviewed were 003, 005, 051~054, 091~094.

This QA Inspector performed random VT and then MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector, George Goulet, generated an MT report for this date. The member is identified as OBG FB3061-001. The weld designations reviewed were 002, 004, 047~050, 087~090.

Bay 9 – PMT

This QA Inspector monitored OBG Production Monitoring Test (PMT) #3057 for deck panels DP3057-001 and DP3027-001 at Gantry #2. Prior to the start of the PMT, the magnetic particle test (MT) of the tack welds was noted on the test panel as having been performed by ZPMC MT Inspector Jin Jianting on 9/30. The visual inspection of tack welds and root gap was performed by ABF Representative Cao Hai Zhou (ABF), ZPMC CWI Guo Yan Fei (QC), and this QA Inspector. The start time for welding was approximately 0024 hours on 10/3/09 and the finish time was approximately 0053 hours. This QA Inspector randomly verified and documented the welding amperage, voltage, and travel speed during the gas metal arc welding (GMAW) and submerged arc welding (SAW) processes, welds 1 thru 6 at the completion of both the GMAW root pass and SAW cover pass. The welding variables recorded by QC appeared to comply with WPS-B-T-2342-U1-(U-rib)-4. The welds were visually inspected by ABF, QC and this QA Inspector. QC and ABF informed this QA Inspector that all six welds were acceptable and this QA Inspector concurred. This QA inspector randomly witnessed ZPMC ultrasonic testing (UT) inspector, identified as Ma Jilong, perform UT on each of the 500 mm test welds for depth of penetration and conformance. This QA Inspector selected fifteen designated locations for macroetch sampling per contract requirements. Each macroetch location was stamped by ZPMC personnel with the number 3057, the letter P, and an individual macroetch identifying number for each macroetch. After removal from each of the weld test specimens, polishing, and acid etching of the selected end, the macroetches were evaluated with a 7X optical magnifier and accepted by QC, ABF, and this QA Inspector.

All fifteen sample macros appeared to meet requirements and were noted to appear acceptable. See Caltrans U-ribs PMT Inspection Sheet, ZPMC production monitoring test plate inspection report, and Caltrans Macro Etch Log - all dated 10/3/2008 for additional information.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

This QA Inspector informed ZPMC QC Yang Qing Feng, ZPMC CWI Zhu Tian Shu, and ABF Representative Luo Gui Lin of the VT rejection of the above noted welds and the termination of the inspection of member FB3030-002.

Comments

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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, 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Goulet,George	Quality Assurance Inspector
Reviewed By:	Dawson,Paul	QA Reviewer
