

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-005054**Date Inspected:** 04-Dec-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 2300**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:	Li Jia			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:	PMT - deck panels, tower skin plates		

Summary of Items Observed:

Sub-assembly – Bay 1 - PMT

Caltrans Quality Assurance Inspector George Goulet (QA Inspector) monitored OBG Production Monitoring Test (PMT) #1 for deck panels DP424-001 and DP262-001 at Gantry #1. Prior to PMT #1, the magnetic particle test (MT) of the tack welds was noted on the test panel as having been performed by ZPMC MT Inspector Zhou Dong Yun. The visual inspection of tack welds and root gap was performed by ABF QC Chang Bao Qian (ABF), ZPMC CWI Li Jia (CWI), and QA Inspector. The start time for welding of PMT #1 was approximately 0028 hours on Friday, 12/5/08 and the finish time was approximately 0107 hours. 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 welds were visually inspected by ABF, CWI and QA Inspector. CWI marked a location of what CWI and ABF called underfill for 100mm on weld #6. However, both CWI and ABF informed QA Inspector that the area and the chosen 500 mm of all six welds were acceptable. QA inspector concurred. QA inspector witnessed ZPMC Ultrasonic Testing (UT) inspector, identified as Ma Ji Long, perform UT on each of the welds for depth of penetration and conformance. QA Inspector identified designated locations for macroetch sampling per contract requirements. The macroetch specimens were evaluated with a 7X optical comparator and a 10X optical comparator and accepted by CWI, ABF, and QA Inspector. QA Inspector observed an inclusion in specimen 1-1 and also one in specimen 3-1. However, the size of each was less than 1mm. 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 12/5/2008 for additional information.

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Heavy Shops – Bay 2

Caltrans Quality Assurance Inspector George Goulet (QA Inspector) performed final 100% VT and 10% MT verification of the following skin plate butt welds: WSD1-SA39A/K-18A and WSD1-SA294A/G-12A. No apparent indications were observed. QA Inspector notated QA Inspector's lot number and date on the skin plate near each weld indicating Caltrans acceptance.

Summary of Conversations:

As noted above in Summary.

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 Peter Dautermann, 150-0219-9593, who represents the Office of Structural Materials for your project.

Inspected By:	Goulet,George	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
