

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-002340**Date Inspected:** 14-May-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**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:	Chen Chih-Ming/Luan Zhao Gang			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 side and bottom panels		

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG new assembly bay 2

QA observed ABF personnel inspecting the fit up of floor beam FL-1, FL-2 and FL-3 on OBG 3BE/PP23 using laser equipment.

QA observed ZPMC qualified welding personnel performing SAW welding on side panel SP-46A to SP-34A joint# SEG-013A-019 following the guide lines of WPS-B-T-2221-B-L2c-S-1. ZPMC and ABF QC inspectors appeared to be monitoring the welding process continuously. The welding parameters as measured with Quality Controls calibrated instruments appeared to be in conformance with the posted WPS's and were as follows:

Volts: 24.4 Amps: 678 Travel Speed: 655 mm/min

QA observed an SMAW Critical Weld Repair (CWR) without an approved CWR procedure. According to ZPMC QC CWI identified as Mr. Chen Chih-Ming after removing the ceramic backing bar from side panel SP-33A to SP-45A joint# SEG-013A-007 after the completion of the SAW weld the weld failed Visual Testing (VT). The SPCM weld was back gouged to a depth of 15mm in a 20mm plate which exceeds 65% of the material thickness making it a critical weld repair. ZPMC neglected to submit a CWR procedure for this joint prior to

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commencement of the repair. QA informed Mr. Chen Chih-Ming of an incident report concerning this issue.

OBG Bay 1

QA performed visual verification inspection for completed Partial Joint Penetration (PJP) U-rib to deck plate welds on deck panel DP-383-001 weld W1. All welds that were inspected appeared to exhibit some degree of undercut, lack of fusion, overlap, oversize and/or under fill. All of the completed (PJP) welds joining U-Rib to deck plate that have inspected on this panel do not appear to comply with the visual acceptance criteria specified in AWS D1.5 2002 and the contract documents. QA completed a Caltrans QA visual verification weld inspection report concerning only the welds that were verified for the OBG deck panel mentioned above. The report is on file in the Caltrans QA office.



Summary of Conversations:

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

Inspected By:	Hall,Steven	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
