

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-002503**Date Inspected:** 11-May-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2200**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Shen Xue Jun			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:

On this date, Caltrans Office of Structural Materials (OSM) Quality Assurance (QA) Inspector Edward Leach was present to randomly observe and document the welding and Quality Control (QC) functions performed by ZPMC personnel relative to the fabrication of SAS Superstructure project. While on site, the QA Inspector noted the following work.

New Tower Shop-Bay 3

The QA Inspector randomly observed ZPMC personnel at multiple locations performing repairs on various closed rib deck panel assemblies throughout the shop. At this time ZPMC personnel were also off-loading several additional deck panels and turning them over with the closed ribs facing down. The QA Inspector monitored a Flux Cored Arc Welding (FCAW) weld repair that was already in process by ZPMC welding personnel Chang Chuang, ID #053870 on DP038-002, weld joint 6. The welding was for incomplete fusion located at Y location 1, 170mm with a length of approximately 70mm. The QA Inspector identified welding procedure specification (WPS) designation WPS-345-FCAW-2G(2F)-Repair as the WPS used to perform this repair. Once the welding was completed, the area was then ground and blended with the existing weld metal. Later in the shift the QA Inspector began visual inspection (VT) on DP038-002, weld joint 006, 007, 008 after repairs had been made. The QA Inspector recorded the lengths, Y locations, discontinuity type and the repairs that were made onto a Caltrans visual inspection report. The VT is still in progress at this time.

OBG Bay 3

The QA Inspector observed ZPMC personnel performing fit-up and tack welding for various side and bottom panel T rib stiffeners towards the rear of the bay. This QA Inspector observed approximately twenty workers in

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

this general area that this work was being monitored by one ZPMC QC personnel. During this observation the QA Inspector did not observe FACW welding from the overhead gantry.

Bay 4

The QA Inspector observed two tower diaphragm plates that were fit-up and tack welded but were still awaiting welding of the weld root. These diaphragms were identified as ESD1-SA78-1A(1B) & WSD1-SA78-1A(1B). At the time of observation, ZPMC personnel were in the process of positioning electric resistance heating bands underneath the material.

Also in bay 4, ZPMC personnel were observed in multiple locations performing grinding and visual inspections for T rib stiffeners on several side and bottom plate panels.

Bay 7

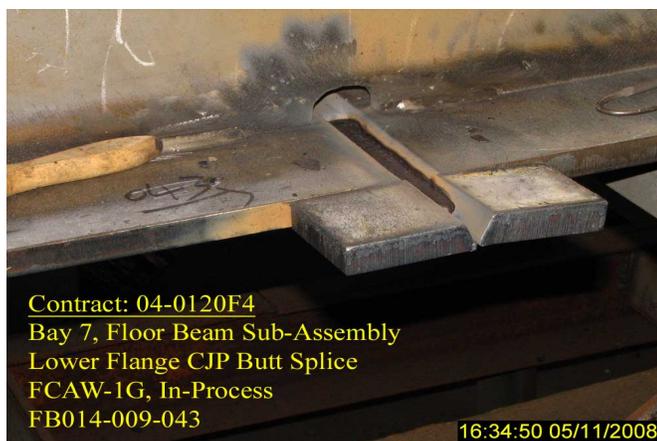
The QA Inspector observed ZPMC personnel in multiple locations performing various functions for the floor beam diaphragm sub-assemblies. During this observation the QA Inspector observed ZPMC welding personnel Chen Chuang Zong and Zhang Jiang utilizing the FCAW process in the flat (1G) position with Supercored 71H, 1.4mm diameter electrode to weld two separate complete joint penetration (CJP) butt splices on the lower flange assembly.

The weld joint designations where this welding was being performed are designated as FB014-009-043 and FB014-009-044. The QA Inspector observed ZPMC CWI personnel Wang Sai Fa monitoring the electrical welding parameters, travel speed and interpass temperature. The QA Inspector was informed by Mr. Wang Sai Fa that the welding procedure specification (WPS) is designated as WPS-B-T-2231-B-u2-F-1. Each welder was also observed using proper interpass cleaning methods with slag hammers and wire brushes. The work in progress appeared to comply with the noted WPS and the contract specifications.

New Tower Shop-Bay 1

At approximately 2000hrs the QA Inspector witnessed magnetic particle testing (MT) performed by ZMPC MT personnel Zhou Dong Yun. The MT was performed for 25% of a CJP butt splice on tower skin plate designation SSD1-SA40A/E-17B. After Mr. Zhou Dong Yun completed MT for side A, ZPMC personnel then proceeded to flip the plate over for 25% MT inspection on side B. The MT witnessed on this date appeared to comply with the contract specifications.

The following pictures below detail some of the work in progress on this date.



WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Summary of Conversations:

No relevant conversations this date.

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:	Leach,Ed	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
