

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: 13.9/14.3,0.0/1.6File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000824**Date Inspected:** 12-Nov-2007**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:	Sha Zhi	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	
Bridge No:	34-0006	Delayed / Cancelled:	Yes No N/A	
		Component:	Caltrans Mock-Up	

Summary of Items Observed:

Caltrans Quality Assurance (QA) Inspector, Ken Jobes, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, to randomly monitor welding and Quality Control (QC) functions. While on site, the QA Inspector observed and/or discovered the following:

Caltrans QA Inspector observed the welding of p290-2 stiffener to A75 skin for the 114M Mock-Up Interior Splice Assembly, Skin Plate D. This weld is identified as MUC-A75-2A. Welding Procedure Specification (WPS) B-T-2231-TC-U5-F, Revision 1, for Flux Cored Arc Welding (FCAW) was being used. The welder was Chang Chuancang (Welder I.D. No. 053870). ZPMC American Welding Society (AWS) Certified Welding Inspector (CWI), Sha Zhi (CWI No. 07081551) and Bureau Veritas Inspector, Li Gang were present during this welding. The QA Inspector verified compliance with the WPS in the following areas:

	WPS	Random Actual	Method
Electrode Class	E71T-1	E71T-1	Visual Observation
Electrode Diameter	1.4 mm	1.4 mm	Visual Observation
Amperage	280 - 350	315 - 320	Calibrated Fluke 337 Meter
Voltage	28 - 32.5	31.5	Calibrated Fluke 337 Meter
Type Shielding	100% CO2	100% CO2	Visual Observation
Gas Flow Rate	18 - 25 L/min	20 L/min	Visual Observation

The QA Inspector also observed that the QC Inspector was documenting the parameters as welding progressed and that the random verification by the QA Inspector essentially confirmed the QC documentation for the random

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

sample, and that QC documentation showed compliance with the WPS up to the time of the random sample. This weld was not completed during this shift.

Later in the shift, the QA Inspector observed the same welder, same CWI and same Bureau Veritas Inspector welding and monitoring the weld identified as MUC-A75-1A, joining p290-1 to A75 on the 114M Mock-Up Interior Splice Assembly, Skin Plate D. Parameters were being monitored and recorded by qualified ZPMC personnel and were within the requirements of WPS B-T-2231-TC-U5-F, Revision 1. This weld was not completed during this shift.

Summary of Conversations:

As identified within the contents of this report.

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:	Jobs,Kenneth	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer
