

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-002577**Date Inspected:** 23-May-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Chen Chih-Ming / An Qingxiang			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 deck panels, 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 performed Ultrasonic Testing (UT) verification on the following side panel T-bar stiffener splice joints after ZPMC flame straightened the stiffeners: SP032-001 welds 007 and 008, SP024-001 welds 001 and 002. All four welds appeared to be in compliance with AWS D1.5 2002 and the contract documents.

Other general observations include ZPMC personnel grinding side and bottom panels and weld bevel prep.

New Tower Bay 1

QA observed ZPMC personnel tack welding skin plate joint# SSD1-SA178C/D-17, 11A, 15, 10A, 8, 14, 5 and 25A. QA also observed ZPMC qualified welding personnel perform FCAW welding of the root pass on tower skin plate joint# SSD1-SA159G/J-23A. QA observed no other welding in this bay at the time QA was present.

New Tower Bay 2

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

QA observed ZPMC qualified welding personnel perform SAW welding on tower skin plate joint# ESD1-SA294A/G-4B following the guide lines of approved WPS# WPS-B-T-2221-B-U3c-S and WPS-B-T-2221-B-U3c-S-1. QC monitored the welding process continuously throughout the evening. 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: 32.4 Amps: 658 Travel speed: 635mm/min

Other general observations in the New Tower bays include ZPMC tack welding tower skin plates, weld bevel preparation, flame straightening, CNC parts cutting, hole drilling and grinding.

New Tower Bay 2

QA performed 15% Magnetic particle Testing (MT) verification of repaired welds on deck panel DP-041-001. All areas that were MT'ed appeared to be in conformance with AWS D1.5 2002 and the contract documents.

OBG bay 1

QA performed visual verification inspection for completed Partial Joint Penetration (PJP) U-rib to deck plate welds on deck panel DP-549-001. All welds that were inspected appeared to exhibit some degree of undercut, lack of fusion, overlap, oversize and/or under fill. All of the (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 for the OBG deck panel mentioned above. The report is on file in the Caltrans QA office.



Summary of Conversations:

Only general conversations were held between QA and QC concerning this project.

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.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

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