**DEPARTMENT OF TRANSPORTATION**
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

# WELDING INSPECTION REPORT

**Resident Engineer:** Pursell, Gary
**Address:** 333 Burma Road
**City:** Oakland, CA 94607

**Report No:** WIR-015821
**Date Inspected:** 23-Jul-2010

**Project Name:** SAS Superstructure
**Prime Contractor:** American Bridge/Fluor Enterprises, a JV
**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

**OSM Arrival Time:** 645
**OSM Departure Time:** 1845
**Location:** Shanghai, China

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|---|---|---|---|---|---|---|---|
| **CWI Name:** | Yang Bai Qing. | | | **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:** Orthotropic Box Girder( OBG)

**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Amit K. Juvekar, was present during the times noted above for observations relative to the work being performed.

Subassembly, Bay 04, Deck Panel 13CE-DP3103-001.

This QA Inspector performed Phased Array Ultrasonic Testing (PAUT) following the guide lines of UT procedure titled “Phased Array Ultrasonic Testing for the Detection and Sizing of Suspected Planar Discontinuities (Cracks) in PJP Welds, # UT 04-0120F4 PJP Rib Weld” after ZPMC welding personnel performed weld repairs of tacked areas of the Partial Joint Penetration (PJP) welds joining u-ribs to deck plate. The deck panel examined is as follows:

DP3103-001: 6 tack weld location found compliant and 3 tack weld location found non-compliant.

Subassembly, Bay 04, 13CW, Deck panel to U-rib.

FCAW Repair welding of partial penetration weld joints DP3149-001-006, 140; located on subassembly, Bay 04, 13CW. Welder is identified as 203805; ZPMC Quality Control Inspector (QC) is identified as Yang Bai Qing. The welding variables recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-345-FCAW-2G(2F)-FCM-REPAIR.

Y-Locations for the repairs were;
W006 – 4550
W140 - 4250

Subassembly, Bay 04, 13BW, Deck panel to U-rib.

FCAW Repair welding of partial penetration weld joints DP3138-001-176 (Y-Location 4850); located on subassembly, Bay 04, 13BW. Welder is identified as 062265; ZPMC Quality Control Inspector (QC) is identified as Yang Bai Qing. The welding variables recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-345-FCAW-2G(2F)-FCM-REPAIR.

Subassembly, Bay 04, Deck Panel 13CE-DP3106-001.

This QA Inspector performed Phased Array Ultrasonic Testing (PAUT) following the guide lines of UT procedure titled “Phased Array Ultrasonic Testing for the Detection and Sizing of Suspected Planar Discontinuities (Cracks) in PJP Welds, # UT 04-0120F4 PJP Rib Weld” after ZPMC welding personnel performed repairs of tacked areas of the Partial Joint Penetration (PJP) welds joining u-ribs to deck plate. The deck panel examined is as follows:

DP3106-001: 7 tack weld location found compliant and 5 tack weld location found non-compliant.

Subassembly, Bay 04, Traveler rails.

During Random Visual in process Inspection, this QA inspector observed ZPMC personnel Heat-straightening traveler rail identified as 10TR2-001. Heat Straightening report (HSR) number identified as HSR1(B)-8079. The attached photographs provide additional detail.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

**Summary of Conversations:**

No relevant conversations.

**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 Eric Tsang, 1500.042.2372, who represents the Office of Structural Materials for your project.

# WELDING INSPECTION REPORT

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| **Inspected By:** | Juvekar,Amit | Quality Assurance Inspector |
| **Reviewed By:** | Carreon,Albert | QA Reviewer |