

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-001778**Date Inspected:** 21-Mar-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Changxing Island**CWI Name:** Chen Xi**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:**

Caltrans Quality Assurance (QA) Inspector, Larry Viars was present to perform dimensional measurements and Visual Testing (VT) of the Orthotropic Box Girder (OBG) components, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

The Caltrans QA Inspector observed ZPMC personnel completing Submerged Arc Welding (SAW) of Deck Panel U-rib Partial Joint Penetration welds for DP002-001. Welding appeared to be in conformance with the posted WPS.

The Caltrans QA Inspector performed dimensional measurements of the U-rib hand hole areas for the "D" dimension. Measurements were taken with digital calipers with following ranges noted, DP135-001 (5 rib panel) 10 locations, 118.8 mm to 121.2 mm. DP243-001 (5 rib panel) 10 locations, 118.0 mm to 122.3 mm.

The Caltrans QA Inspector performed visual inspection of OBG 9.960 meter deck panel DP110-001 (welds 001 through 008) U-rib Partial Joint Penetration (PJP) welds. Visual testing of welding was performed in accordance with contract documents. The following discontinuities were found during inspection on the Submerged Arc Welding (SAW) cover pass, incomplete fusion, overlap, undercut, underfill and oversize welds. Welding discontinuities were marked on deck panel with a permanent marker, length and Y location recorded. Visual Inspection results were distributed to the appropriate personnel for review. A summary of discontinuities on inspected U- rib PJP welds are listed below.

DP110-001

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

DP110-001-001, Incomplete Fusion 8 areas, Overlap 1 area, and Underfill 2 areas.

DP110-001-002, Overlap 1 area, Oversize 1 area, and 1 arc strike on deck plate base metal (9897mm from Y)

DP110-001-003, Overlap 3 areas, and Incomplete Fusion 1 area.

DP110-001-004, Overlap 2 areas, and Underfill 5 areas

DP110-001-005, Overlap 2 areas, Underfill 3 areas, and Oversize 1 area.

DP110-001-006, Overlap 1 area, and Underfill 3 areas, Incomplete Fusion 3 areas, and Undercut 1 area

DP110-001-007, Overlap 1 area, and Underfill 4 areas

DP110-001-008, Underfill 1 area, Incomplete Fusion 14 areas, and Overlap 6 areas

Summary of Conversations:

No relevant conversations occurred 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:	Viars,Larry	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
