

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-007033**Date Inspected:** 09-Feb-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sun Wei / Sun Bo**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 Components**Summary of Items Observed:**

The Caltrans (CT) Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

OBG Sub-Assembly Bay 12:

The QA Inspector randomly observed ZPMC welding personnel performing heat straightening operations to reduce weld induced distortion from welding the T=35 mm thick I-Ribs to Deck Plate 1AW-DP570-001 at Complete Joint Penetration (CJP) Weld Joint (WJ) Numbers 012, 014, 016, and 018. 1AW-DP570-001 is placed upside down with heat being applied directly to the welds attaching the T=35 millimeter (mm) I-Ribs to Deck Plate 1AW-DP570-001. The QA Inspector randomly observed that jacks (passive) were in place, but no counter weights. This work was being performed in accordance with ZPMC Heat Straightening Request (HSR) HSR (B)-247 Rev. 0.

The QA Inspector randomly observed ZPMC Non-Destructive Testing (NDT) Technician Wang Wei, utilizing the Magnetic Particle Testing (MT) Method, to examine excavations in WJ's 009, 011, and 013 attaching the T=35 mm I-Ribs to the base plate on Deck Plate 1AE-DP580-001. The QA Inspector and Mr. Wang observed transverse cracks in excavations in WJ's 009 and 011. Mr. Wang marked up those indications in WJ's 009 and 011, to be further ground.

The QA Inspector randomly observed ZPMC NDT Technician Wang Wei, utilizing the MT Method, to examine

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WJ's 168 and 175 attaching a U-Rib Extension to the base plate on Deck Plate 1AE-DP605-001. There appeared to be no indications and Mr. Wang accepted WJ's 168 and 175.

The QA Inspector randomly observed ZPMC NDT Technicians utilizing the Ultrasonic Testing (UT) Method, to examine R4 repairs to WJ's 011, 013, 015 and 017 attaching the T=35 mm I-Ribs to the base plate on Deck Plate 1AW-DP545-001. There appeared to be rejectable indications and the QA Inspector randomly observed ZPMC NDT Technicians marking up those areas for R5 repairs.

The QA Inspector randomly observed 1 ZPMC helper utilizing an angle grinder, to blend the cover pass after R1 repairs to WJ's 012, 014, 016 and 018 attaching the T=35 mm I-Ribs to the base plate on Deck Plate 1AE-DP610-001.

The QA Inspector randomly observed 2 ZPMC helpers utilizing angle grinders, to blend the cover pass after R1 repairs to WJ's 011, 013, 015 and 017 attaching the T=35 mm I-Ribs to the base plate on Deck Plate 1AE-DP585-001.

The QA Inspector randomly observed 3 ZPMC helpers utilizing angle grinders, to blend the cover pass after R1 repairs to WJ's 013, 015, 017, 019 and 021 attaching the T=35 mm I-Ribs to the base plate on Deck Plate 1AE-DP595-001.

The QA Inspector randomly observed 1 ZPMC helper utilizing an angle grinder, to blend the slag on the 200 mm CJP welds at the tapered ends of the U-Rib Extensions. The QA Inspector randomly observed that these areas had been trimmed with the Carbon Air Arc Process after welding to the base plate on Deck Plate 1AE-DP615-001.

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 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Franco,Charlie	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer
