

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-007029**Date Inspected:** 05-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 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 1AE-DP590-001 at Complete Joint Penetration (CJP) Weld Joint (WJ) Numbers 013, 015, 017, 019 and 021. 1AE-DP590-001 is placed upside down with heat being applied directly to the welds attaching the T=35 millimeter (mm) I-Ribs to Deck Plate 1AE-DP590-001. The QA Inspector randomly observed that jacks (passive) were in place, but no counter weights. The work was being performed in accordance with ZPMC Heat Straightening Request (HSR) HSR (B)-242 Rev. 0.

The QA Inspector randomly observed a ZPMC helper utilizing an angle grinder to blend areas that had been previously repaired in WJ's 011, 013, 015 and 017 in the CJP welds attaching the T=35 mm I-Ribs to Deck Plate 1AE-DP615-001.

The QA Inspector randomly observed 3 ZPMC helpers utilizing angle grinders to blend areas that had been previously repaired in WJ's 009, 011 and 013 in the CJP welds attaching the T=35 mm I-Ribs to Deck Plate 1AE-DP580-001. The QA Inspector also randomly observed some welding induced distortion in the T=35 mm I-Ribs.

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The QA Inspector randomly observed ZPMC welder Jiang Jing Guang ID 062265, utilizing the Flux Cored Arc Welding (FCAW) Process in the 3F (Vertical Groove/Vertical Fillet) Positions with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2233-B-U2a-F, to fit up and tack weld the backup bars to the U-Ribs on Deck Plate 1AE-DP615-001, to allow for the attachment of the U-Rib Extensions. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed a ZPMC helper utilizing an angle grinder to blend areas that had been previously repaired in WJ's 012, 014, 016 and 018 in the CJP welds attaching the T=35 mm I-Ribs to Deck Plate 1AW-DP570-001.

The QA Inspector randomly observed ZPMC welder Yang Yong Zeng ID 059418, utilizing the FCAW Process in the 3F (Vertical Fillet) Position with ZPMC WPS WPS-B-T-2233-B-U2a-F, to fit up and tack weld the backup bars to the to the U-Ribs on Deck Plate 1AW-DP565-001, to allow for the attachment of the U-Rib Extensions . The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed a ZPMC helper utilizing an angle grinder to blend areas that had been previously repaired in WJ's 013, 015, 017, 019 and 021 in the CJP welds attaching the T=35 mm I-Ribs to Deck Plate 1AW-DP560-001.

The QA Inspector randomly observed 2 ZPMC helpers utilizing angle grinders to blend areas that had been previously repaired in WJ's 011 and 013 in the CJP welds attaching the T=35 mm I-Ribs to Deck Plate 1AW-DP545-001.

The QA Inspector randomly observed ZPMC welders Jiang Jing Guang ID 062265 and Han Guo Dong, utilizing the FCAW Process in the 2G/2F (Horizontal Groove/Horizontal Fillet) Positions with ZPMC WPS WPS-B-T-2232-TC-U4b-F-1 to attach the U-Rib Extensions to the base plate on Deck Plate 1AE-DP605-001, at WJ's 168, 172, 176 and 180. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed 1 ZPMC helper utilizing an angle grinder to clean out excavations after Carbon Air Arc Gouging (CAAG), to remove rejects previously detected by ZPMC QC Ultrasonic Testing (UT) Examination in the welds attaching the T=35 mm I-Rib to Deck Plate 1AE-DP595-001 at WJ's 013, 015, 017, 019 and 021.

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

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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
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Reviewed By:	Clifford,William	QA Reviewer
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