

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-007790**Date Inspected:** 13-Jul-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Guo Yan Fei, Yu Dong Ping**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:** TOWER**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).

Heavy Equipment Shop Bay 10:

The QA Inspector attempted to perform a 100% Visual Testing (VT) Inspection and a 15% Magnetic Particle Testing (MT) Verification of the inside corner seam weld between Skin Plates C and D of Lift 1 North Tower at Weld Joint (WJ) Numbers NSD1-A112B/H-3B and NSD1-A166E/J-32B per ZPMC NDT Notification Sheet 003678. The QA Inspector observed an area at y=1000 mm to 1130 mm below the outside of 28 M Lower Diaphragm, where the base metal of Skin Plate C and the top of WJ NSD1-A166E/J-32B had been ground to a depth of 1.8 mm below flush. The QA Inspector informed ZPMC Quality Control (QC). ZPMC QC informed the QA Inspector that the area would be repaired during the day shift on 07-14-09, and that QA would be notified when the repairs had been completed. The QA Inspector accepted the VT Inspection and MT verification of the above listed welds with the exception of the area at Y= 1000 mm to 1130 mm in WJ NSD1-A166E/J-32B. The attached photograph provides additional detail.

The QA Inspector performed a 100% VT Inspection of the welds attaching the triangle diagonal plates to Skin Plates B and C of Lift 2 North Tower at 53M, 56M, 59M, 62M, 65M, 68M, 71M, 74M, 77M and 80.75M Diaphragms per ZPMC NDT Notification Sheet 003678. There appeared to be no indications and the QA Inspector accepted the VT Inspection and MT verification of the above listed welds. The attached photograph

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provides additional detail.

The QA Inspector randomly observed ZPMC welder Sun Guang Ping ID 050289, utilizing the Shielded Metal Arc Welding (SMAW) Process with ZPMC Weld Procedure Specification (WPS) WPS-345-2G 2F)-Repair, to perform a weld repair to an area on the inside of the corner seam weld between Skin Plates B and C in between 65M Upper and Lower Diaphragms of Lift 2 North Tower. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Si Xing Yu ID 052930, utilizing the SMAW Process with ZPMC WPS WPS-345-2G 2F)-Repair, to perform a weld repair to an area in the outside of the corner seam weld between Skin Plates A and B of Lift 2 North Tower. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed 3 ZPMC welders utilizing the Carbon Air Arc Gouging (CAAG) Process to back gouge areas in the outside of the corner seam weld between Skin Plates D and E of Lift 2 South Tower.

Heavy Equipment Shop Bay 11:

The QA Inspector randomly observed 1 ZPMC welder utilizing the CAAG Process to back gouge areas in the outside of the corner seam weld between Skin Plates D and E of Lift 3 East Tower.

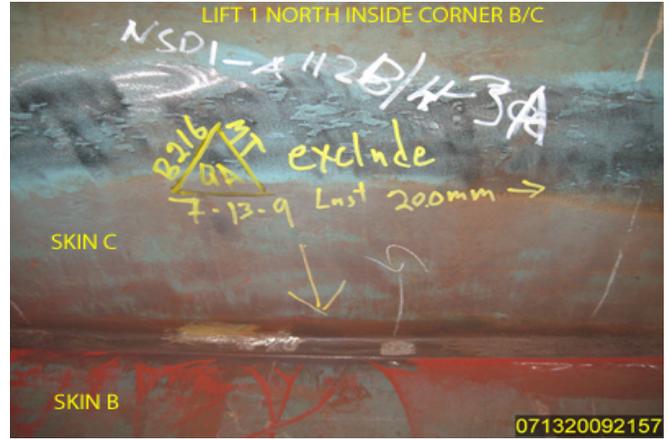
The QA Inspector randomly observed ZPMC welder ID 066479, utilizing the Flux Cored Arc Welding (FCAW) Process in the 2G (Horizontal Groove) Position with ZPMC WPS WPS-B-T-4332-TC-P4-F, to weld doubler plates to Lift 4 East Tower Skin Plate A at WJ ESD1-FASA4-2A/E-17. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welders ID 066865 and ID 070212, utilizing the FCAW Process in the 2G (Horizontal Groove) Position with ZPMC WPS WPS-B-T-4332-TC-P4-F, to weld doubler plates to Lift 4 East Tower Skin Plate A at WJ ESD1-FASA4-2B/E- 21. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

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

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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 Serge Sinevod 13482570045, who represents the Office of Structural Materials for your project.

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