

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-004583**Date Inspected:** 11-Nov-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Chen Chih Chien**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 & OBG**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 Bay 2:

The QA Inspector randomly observed 4 Magnetic Drill Operators drilling bolt holes in Longitudinal Stiffeners piece marks A571(S) and A572(S).

OBG Bay 3:

The QA Inspector randomly observed ZPMC welders Xin Meng ID 053742 and Wei Da shuai ID 051246 on Gantry 1, utilizing the Flux Cored Arc Welding (FCAW) Process in the 2F Position with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2232-3, to weld T-Ribs to Side Plate SP539-001 at WJ's SP539-001-016/015, 019/018, 024/023, and 028/027. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welders Li Shu Liang ID 048801, Liu Zhi Hong ID 062447 and Sun Ti Yu ID 054459 on Gantry 2, utilizing the FCAW Process in the 2F Position with ZPMC WPS WPS-B-T-2232-3, to weld I-Ribs to Side Plate SP458-001 at WJ's SP458-001-001/002, 005/06 and 009/010. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The weld parameters appeared to comply with

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

contract requirements. The attached photographs provide additional detail.

The QA Inspector randomly observed ZPMC welder Zhao Quan Li ID 046813, utilizing the Shielded Metal Arc Welding (SMAW) Process in the 2F Position with ZPMC WPS WPS-B-T-2112-FCM, to fit up and tack weld 20 millimeter (mm) thick I-Ribs to Side Plate SP459A/PL1354A. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Liu Xuan Xuan ID 250581, utilizing the SMAW Process in the 2F Position with ZPMC WPS WPS-B-T-2112-FCM, to fit up and tack weld 20 mm thick I-Ribs to Side Plate SP460A/PL1354C. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

OBG Bay 4:

The QA Inspector randomly observed ZPMC welder Li Xue Hua utilizing the FCAW Process in the 2G Position with ZPMC WPS WPS-B-T-2332-TC-P4-F-1, to weld Run Off Tabs to the vertical WJ's on the Flange Plate Assembly for 59M (N) Single Diaphragm SA242. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welders ID's 066459 and 068250 utilizing the SMAW Process in the 2G Position with ZPMC WPS WPS-B-T-3312-TC-P5, to weld Web Plate p1149 to 53M Upper Diaphragm SA381 at WJ's ESD1-SA381B/B-5/6. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welders ID's 037779/066456 WJ's ESD1-SA424-13/14, and 066457/066179 WJ's utilizing the SMAW Process in the 2G Position with ZPMC WPS WPS-B-T-3312-TC-P5, to weld Web Plates p720 and p721 to 77M Diaphragm SA425 at WJ's ESD1-SA424-11/12 and 13/14. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welders ID's 054460 and 053609, utilizing the FCAW Process in the 3G Position with ZPMC WPS WPS-B-T-2333-B-U3-F, to weld the vertical between sections 1598/SA408 WJ EDS1-SA408-15B and p1509/p1473 WJ ESD1-SA408-12B on the Flange Plate Assembly for 59M (E) Single Diaphragm SA409. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

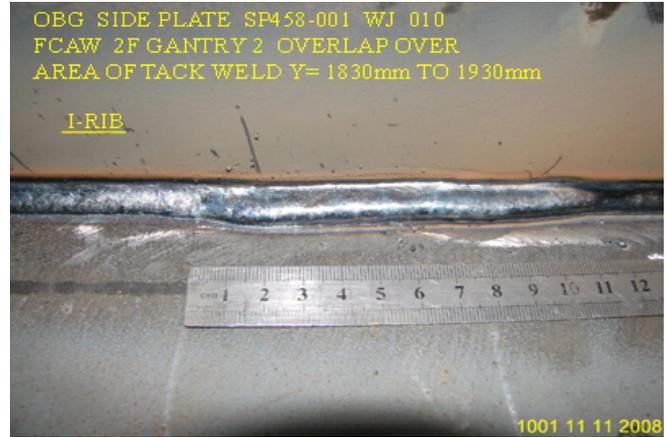
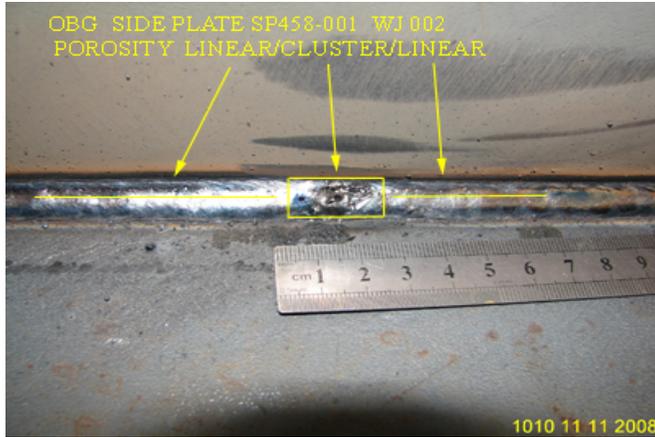
The QA Inspector performed a 10% final Visual (VT) and MT verification on the cover pass of the fillet welds on Side Plate SP-344-001 (Location 8CE) at WJ's 013 through 024. There appeared to be no indications and the QA Inspector accepted WJ's 013 through 024 on SP344-001. The QA Inspector randomly observed ABF Representative Hu Gui Hua attach Green Tag 001600 to the part.

The QA Inspector performed a 10% final Visual (VT) and MT verification on the cover pass of the fillet welds on Side Plate SP-727-001 (Location 8CW) at WJ's 025 through 036. There appeared to be no indications and the QA Inspector accepted WJ's 025 through 036 on SP727-001. The QA Inspector randomly observed ABF

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Representative Hu Gui Hua attach Green Tag 001601 to the part.



Summary of Conversations:

As noted in the above body of this report.

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 Joshua Ishibashi, 13764710411, who represents the Office of Structural Materials for your project.

Inspected By: Franco,Charlie

Quality Assurance Inspector

Reviewed By: Wright,Mark

QA Reviewer