

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-000962**Date Inspected:** 29-Nov-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 730**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**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:** 89M Tower Mock Up & OBG**Summary of Items Observed:**

Bay 2:

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

89M Mock Up:

The QA Inspector randomly observed ZPMC welder Li Shu Qiang ID Number 053609, utilizing the Flux Cored Arc Welding (FCAW) Process with approved ZPMC Weld Procedure Specification (WPS) WPS-B-P-2231-TC-U5-F/WPS-B-T-2131-TC-P5-F in the 1G position to weld the fill and cover passes on Weld Joint (WJ) Numbers MUSB-MA38A/F-4, 10 & 14 attaching Longitudinal Stiffener mp543 to 89M Skin Plate D, Sub-Assembly MA38. The QA Inspector observed ZPMC CWI Xu Lefeng monitoring weld parameters. The QA Inspector also performed random verification of the weld parameters and documented them as follows: welding amperage 308 amps, welding voltage 30.8 volts with a travel speed of 297 millimeters per minute. Weld parameters appeared to comply with the above approved ZPMC WPS's.

The QA Inspector randomly observed a ZPMC helper utilizing a grinder to blend the ends of the longitudinal stiffeners on 89M Skin Plate C, Sub-Assembly MA23 after the carbon arc removal of the run on/run off tabs.

114M Mock Up:

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The QA Inspector randomly observed ZPMC welding personnel fitting up the temporary diaphragms to 114M Skin Plate A, Sub-Assembly MA107. The attached photograph provides additional detail.

Bay 3:

OBG:

The QA Inspector randomly observed ZPMC welder He Yumei ID Number 048625, utilizing the FCAW Process with approved ZPMC WPS WPS-B-T-2132-1 in the 2F position to tack weld T-Ribs to Side Plate PL95E. The QA Inspector observed ZPMC CWI Xu Xianping monitoring weld parameters. Weld parameters appeared to comply with the above approved ZPMC WPS. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welder Liu Zihong ID Number 062447, utilizing the FCAW Process with approved ZPMC WPS WPS-B-T-2132-1 in the 2F position to tack weld T-Ribs to Side Plate PL92D. The QA Inspector observed ZPMC CWI Wang Nan monitoring weld parameters. Weld parameters appeared to comply with the above approved ZPMC WPS.

The QA Inspector randomly observed ZPMC welder Sun Tiyu ID Number 054459, utilizing the FCAW Process with approved ZPMC WPS WPS-B-T-2132-1 in the 2F position to tack weld T-Ribs to Side Plate PL104L. The QA Inspector observed ZPMC CWI Xu Xianping monitoring weld parameters. Weld parameters appeared to comply with the above approved ZPMC WPS.

Bay 7:

OBG:

The QA Inspector randomly observed ZPMC welder Wang Min ID Number 048296, utilizing the Submerged Arc Welding (SAW) Process with approved ZPMC WPS WPS-B-P-2221-B-L2c-S-1 in the IG position to weld the fill and cover passes on WJ FB008-04-026 joining Floor Plate Sections X94-X94A (T=30mm) and X47-X47A-4 (T=12mm). The QA Inspector observed ZPMC CWI Li Zhijiang monitoring weld parameters. The QA Inspector also performed random verification of the weld parameters and documented them as follows: welding amperage 533 amps, welding voltage 31 volts with a travel speed of 430 millimeters per minute. Weld parameters appeared to comply with the above approved ZPMC WPS. The attached photograph provides additional detail.

