

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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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-007327**Date Inspected:** 31-May-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**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:** 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).

**Outside Yard at Vertical Mill:**

The QA Inspector randomly observed that ZPMC milling was idle and no work was being performed on Lift 1 South Tower Shaft or Lift 2 South Tower.

The QA Inspector randomly observed several ZPMC helpers utilizing angle grinders to clean up the bevel faces after torch cutting the bevels on the ends of the longitudinal stiffeners and Skin Plates A through E on Lift 1 South Tower Shaft. The attached photograph provides additional detail.

The QA Inspector randomly observed 1 ZPMC helper utilizing an angle grinder to blend pickups on the exterior of Lift 2 South Tower Shaft. The attached photograph provides additional detail.

**Heavy Equipment Shop Bay 10:**

The QA Inspector randomly observed ZPMC welder Li Ji Xiang utilizing the Shielded Metal Arc Welding (SMAW) Process in the 1G (Flat Groove) Position with ZPMC Weld Procedure Specification (WPS) WPS-345-SMAW-1G (1F)-Repair, to weld repairs to Lift 4 North Tower Skin B Weld Joint (WJ)

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NSD1-FBSA4-1A/C-41. The QA Inspector randomly observed ZPMC Quality Control monitoring weld parameters. Weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

Heavy Equipment Shop Bay 11:

The QA Inspector randomly observed ZPMC welder Lin Lan Zhong ID 058015, utilizing the Submerged Arc Welding (SAW) Process with ZPMC WPS-B-T-2221-C-U2b-S in the 1G (Flat Groove) Position, to weld the fill pass in a long seam in Lift West Tower at WJ WSD1-TL6B/L-4A. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 666 amps, 31 volts with a travel speed of 530 millimeters (mm) per minute. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Xue Yan ID 040634, utilizing the Submerged Arc Welding (SAW) Process with ZPMC WPS-B-T-2221-C-U2b-S in the 1G (Flat Groove) Position, to weld the fill pass in a long seam in Lift West Tower at WJ WSD1-TL6B/L-4A. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 680 amps, 30.1 volts with a travel speed of 550 mm per minute. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Xue Yan ID 040634, utilizing the SAW Process with ZPMC WPS WPS-B-T-2221-C-U2b-S in the 1G (Flat Groove) Position, to weld the fill pass in a long seam in Lift 1 West Tower at WJ WSD1-TL6B/L-2A. 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.



## Summary of Conversations:

No relevant conversations.

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## 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.

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<b>Inspected By:</b>	Franco,Charlie	Quality Assurance Inspector
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<b>Reviewed By:</b>	Clifford,William	QA Reviewer
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