

**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-004459**Date Inspected:** 29-Oct-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Hu Wei Qing**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 & Tower**Summary of Items Observed:**

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 and Orthotropic Box Girders (OBG).

**OBG Sub-Assembly Bay 4:**

The QA Inspector randomly observed ZPMC Non-Destructive Testing (NDT) Technician Zhou Dongyun, utilizing the Magnetic Particle Testing (MT) Method to perform a final MT examination of the cover pass of all the welds on Side Plate Sub-Assemblies SP573-001 Weld Joint (WJ) Numbers 013 through 024, SP578-001 WJ's 001 through 012, SP723-001 WJ's 054 through 065 and Bottom Plate Sub-Assembly BP037-001 WJ's 007 through 018. There appeared to be no indications and ZPMC QC accepted all the above listed welds.

The QA Inspector performed a 10% final Visual (VT) and MT verification on the cover pass of all the welds on Side Plate Sub-Assemblies SP573-001 Weld Joint (WJ) Numbers 013 through 024 (Green Tag 001380), SP578-001 WJ's 001 through 012 (Green Tag 001381), SP723-001 WJ's 054 through 065 (Green Tag 001378) and Bottom Plate Sub-Assembly BP037-001 WJ's 007 through 018 (Green Tag 001379). There appeared to be no indications the QA Inspector accepted all of the above listed welds. The attached photograph provides additional detail.

**OBG Sub-Assembly Bay 7:**

The QA Inspector randomly observed ZPMC welder Zhang Qing Quan ID 044774, utilizing the FCAW Process in

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the 2G (Horizontal Groove) Position with ZPMC WPS WPS-B-T-2232-TC-U4b-F, to weld the 30 mm thick web plate in the slot in Flange X7L on Floor Beam Wing Diaphragm FB010-021 at WJ 043. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Hu Wei Qing, monitoring weld parameters. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC Non-Destructive Testing (NDT) Technician Zhou Dongyun, utilizing the MT Method to perform a final MT Inspection on the cover pass of Floor Beam Wing Diaphragms FB015-028 (Side B), FB016-028 (Side B), Floor Beam Diaphragms FB003-064 Yellow Tag 001304A, FB003-064 Yellow Tag 001305A, FB003-085 Yellow Tag 001303A, FB003-091 Yellow Tag 001306A, FB003-090 Yellow Tag 001313A and FB003-086 Yellow Tag 001307A. There appeared to be no indications and ZPMC QC accepted the above listed welds.

The QA Inspector performed a 10% final Visual (VT) and MT verification on the cover pass of all the welds on Floor Beam Wing Diaphragms FB015-028 (Side B), FB016-028 (Side B). There appeared to be no indications the QA Inspector accepted all of the above listed welds. The attached photograph provides additional detail.



### Summary of Conversations:

There were 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 Josh Ishibashi 13764716411, who represents the Office of Structural Materials for your project.

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**Inspected By:** Franco, Charlie

Quality Assurance Inspector

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**Reviewed By:** Wright,Mark

QA Reviewer