

**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-004887**Date Inspected:** 06-Dec-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:** Sun Wei**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**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 4:**

The QA Inspector randomly observed ZPMC NDT Technician Xu Hai, utilizing the Magnetic Particle Testing (MT) Method to perform a final MT examination on the cover pass of the fillet welds on Side Plates SP444A Yellow Tag 002181 (SP444-001) Location 8AW WJ's 001 through 010 and 076 through 085; SP446A Yellow Tag 002178 (SP456-001) Location 8AE WJ's 001 through 010 and 076 through 085. There appeared to be no indications and ZPMC QC accepted all the above listed welds. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC NDT Technician Wang Wei, utilizing the MT Method to perform a final MT examination on the cover pass of the fillet welds on Edge Plates EP94A Yellow Tag 002002180 (EP094-001) Location 8AE WJ's 002 through 005; and EP62A Yellow Tag 002179 (EP094-001) Location 8AW WJ's 004 through 007. There appeared to be no indications and ZPMC QC accepted all the above listed welds.

The QA Inspector performed a 100% final Visual Testing (VT) and 10% MT verification on the cover pass of the fillet welds on Edge Plates EP94A Yellow Tag 002180/Green Tag 002480 (EP094-001) Location 8AE WJ's 002 through 005, EP62A Yellow Tag 002179/Green Tag 002182 (EP062-001) Location 8AW WJ's 004 through 007,

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Side Plate SP456A Yellow Tag 002778/Green Tag 002179 (SP456-001) Location 8AE WJ's 001 through 010 and 076 through 085; and SP444A Yellow Tag 002181/Green Tag 002178 (SP444-001) Location 8AW WJ's 001 through 010 and 076 through 085. There appeared to be no indications and the QA Inspector accepted all the above listed welds.

The QA Inspector randomly observed ZPMC NDT Technician Cai Xin Xin, utilizing the MT Method to perform a final MT examination on the cover pass of the fillet welds on Edge Plates EP76A Yellow Tag 002131 (EP076-001) Location 8CW-F9 WJ's 001 through 004, EP82A Yellow Tag 002132 (EP082-001) Location 8DE-F9 WJ's 001 through 04 and EP88A Yellow Tag 001947 (EP088-001) Location 8CE-F9 WJ's 001 through 004. There appeared to be no indications and ZPMC QC accepted all the above listed welds.

The QA Inspector randomly observed ZPMC NDT Technician Cai Xin Xin, utilizing the MT Method to attempt to perform a final MT examination on the cover pass of the fillet welds on Edge Plate EP84A Yellow Tag 002130 (EP084-001) Location 8CW-F9 WJ's 001 through 004. Mr. Cai and the QA Inspector observed a transverse crack in WJ 004 at Y=270 mm. Mr. Cai rejected the MT examination of EP84A. The attached photograph provides additional detail.

The QA Inspector performed a 100% final Visual Testing (VT) and 10% MT verification on the cover pass of the fillet welds on Edge Plates EP76A Yellow Tag 002131/Green Tag 002219 (EP092-001) Location 8CW-F9 WJ's 001 through 004, EP82A Yellow Tag 002132/Green Tag 002218 (EP082-001) Location 8DE-F9 WJ's 001 through 04, EP88A Yellow Tag 001947/Green Tag 00222 (EP088-001) Location 8CE-F9 WJ's 001 through 04. There appeared to be no indications and the QA Inspector accepted all the above listed welds.



### 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 Peter Dautermann, 15002199593, who represents the Office of Structural Materials

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for your project.

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**Inspected By:** Franco,Charlie

Quality Assurance Inspector

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**Reviewed By:** Wright,Mark

QA Reviewer