

**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-002568**Date Inspected:** 23-May-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:**

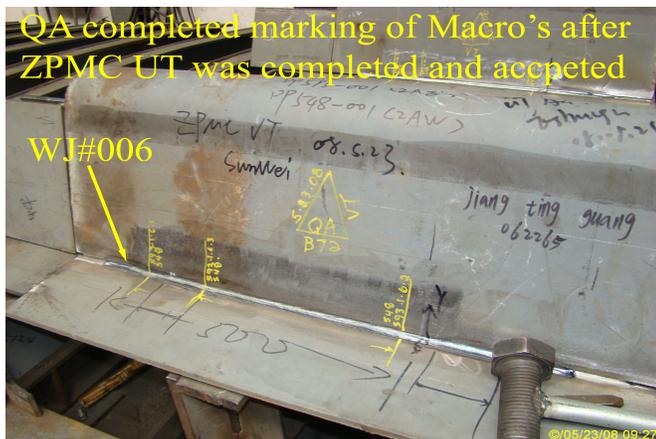
Caltrans Quality Assurance Inspector (QAI) Bruce Berger arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China to periodically monitor welding and Quality Control (QC) functions. While on site the QAI observed and/or discovered the following.

The Caltrans QAI observed welding utilizing the dual process WPS-B-T-2342-U1 (U-rib)-3 welding procedure specification (WPS) for closed rib welding of the Production Monitoring Test (PMT) #1 for Production Panel DP593-001 and DP548-001 on closed U-rib Partial Joint Penetration (PJP) welds in Bay #1. ZPMC welding personnel performed Gantry Machine, Gas Metal Arc Welding (GMAW) for the root pass and immediately performed Gantry Machine, Submerged Arc Welding (SAW) for the cover/final pass on PMT #1, using gantry machine #2. Upon completion of the SAW pass on U-rib PJP welds on PMT #1 Visual Testing (VT) was performed on weld #1 through #6 by ZPMC personnel and was accepted then VT was verified by the Caltrans QAI. Ultrasonic Testing (UT) was then performed by ZPMC inspector and PMT #1 was determined to be acceptable. Macro etch samples were selected by the Caltrans QAI on PMT #1.

The Caltrans QAI observed the GMAW root welding utilizing the dual process WPS-B-T-2342-U1 (U-rib)-3 WPS for closed ribs of deck panels DP593-001 weld joints 001 through 010 and DP448-001 weld joints 001, 002, 005 & 006. Some of the essential welding variables were observed and recorded in the table below. The welding observed appeared to be in compliance with the code and specification.

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Item	Weld Identification	Applicable WPS	CWI Name	Amperage	Voltage	TravelSpeed	Preheat Temp	Remarks
1	DP593-001-001	WPS-B-T-2342-U1	Sun Wei	380	30.0	532mm/min	32	Zhang Shua Hui 059403
2	DP593-001-002	WPS-B-T-2342-U1	Sun Wei	380	30.1	532mm/min	32	Chen Jie 059468
3	DP593-001-003	WPS-B-T-2342-U1	Sun Wei	364	30.1	532mm/min	32	Zhang Shua Hui 059403
4	DP593-001-004	WPS-B-T-2342-U1	Sun Wei	371	30.4	532mm/min	32	Chen Jie 059468
5	DP593-001-005	WPS-B-T-2342-U1	Sun Wei	369	30.4	532mm/min	32	Xiang Huan Feng 059416
6	DP593-001-006	WPS-B-T-2342-U1	Sun Wei	373	29.9	532mm/min	32	Xiang Jie 059378
7	DP593-001-007	WPS-B-T-2342-U1	Sun Wei	362	30.5	532mm/min	32	Xiang Huan Feng 059416
8	DP593-001-008	WPS-B-T-2342-U1	Sun Wei	348	30.1	532mm/min	32	Xiang Jie 059378
9	DP593-001-009	WPS-B-T-2342-U1	Sun Wei	375	30.0	532mm/min	32	Gao Xin Dong 059361
10	DP593-001-010	WPS-B-T-2342-U1	Sun Wei	351	29.8	532mm/min	32	Jiang Ting Guang 062265
11	DP548-001-001	WPS-B-T-2342-U1	Sun Wei	368	30.5	535mm/min	33	Zhang Shua Hui 059403
12	DP548-001-002	WPS-B-T-2342-U1	Sun Wei	366	30.2	535mm/min	33	Chen Jie 059468
13	DP548-001-006	WPS-B-T-2342-U1	Sun Wei	375	30.2	535mm/min	33	Xiang Jie 059378
14	DP548-001-005	WPS-B-T-2342-U1	Sun Wei	360	30.5	535mm/min	33	Xiang Huan Feng 059416

### Summary of Conversations:

No conversations held today.

### 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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Berger, Bruce	Quality Assurance Inspector
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<b>Reviewed By:</b>	Cochran, Jim	QA Reviewer
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