

**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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016692**Date Inspected:** 11-Sep-2010**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:** Li Yang**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 Segment**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

OBG Trial Assembly Yard

Segment 10BW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBW10L-007, top Counter Weight Connection Plate. The welder is identified as #046709 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated as DP727-001-014, Deck Plate I-rib hold back weld. The welder is identified as #041713 and was observed welding in the 4F (overhead) position using approved Welding Procedure Specification WPS-B-T-4114-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated as DP676-001-043, Deck Plate I-rib hold back weld. The welder is identified as #040656 and

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was observed welding in the 4F (overhead) position using approved Welding Procedure Specification WPS-B-T-4114-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated as EP117-001-015, Edge Plate I-rib hold back weld. The welder is identified as #040656 and was observed welding in the 4F (overhead) position using approved Welding Procedure Specification WPS-B-P-2114-FCM-1.

### Segment 10CW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated as DP690-001-008, Deck Plate I-rib hold back weld. The welder is identified as #041713 and was observed welding in the 4F (overhead) position using approved Welding Procedure Specification WPS-B-T-4114-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated as DP677-001-007, Deck Plate I-rib hold back weld. The welder is identified as #040656 and was observed welding in the 4F (overhead) position using approved Welding Procedure Specification WPS-B-T-4114-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated as EP118-001-008, Edge Plate I-rib hold back weld. The welder is identified as #040656 and was observed welding in the 4F (overhead) position using approved Welding Procedure Specification WPS-B-P-2114-FCM-1.

### Segment 10AE/10BE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SP695-001-047, Side Plate WT stiffener web splice. The welder is identified as #044504 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G (4F)-FCM-Repair-1, for WR14794. Original weld was removed to correct out of tolerance alignment.

For the above mentioned welding activities ZPMC Quality Control (QC) Inspectors are identified as Zhou Peng and Liu Hua Jie. The welding variables recorded by QC appeared to comply with the Applicable WPS.

### Bay 11

This QA Inspector observed Welder Qualification using the Flux Cored Arc Welding (FCAW) process and Shield Metal Arc Welding (SMAW) process for Plug Weld Qualification for plate of unlimited thickness in the 1G (flat) position. Dimension of test coupon are 75mm x 75mm x 10mm with a 25mm diameter hole in center. Backing bar was 10mm.

Position, Process, WPS, Test Plate ID# and name are as follows:

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1G

FCAW

WPS-B-T-2132-2-Plug

1 Liu Xie

2 Li Shoufu

3 Liu Xiaolin

4 Tang Xinjian

5 Wang Guijun -VT Reject

6 Chen Dingxin -VT Reject

7 Jiang Zhen -VT Reject

8 Zheng Yi

9 Wang Weijun VT Reject

12 Cao Tao VT Reject

13 Xu Changxue VT Reject

14 Wei Hengbin

15 Zhang Binghua

16 Zhang Xiangrong VT Reject

19 Wang Cheng

20 Shi Yan -VT Reject

21 Guo Hongbing

22 Yu Fangfu

23 Yu Fangrun VT Reject

25 Tang Haijun -VT Reject

26 Chen Ruquan

27 Zhou Dehui -VT Reject

30 Zhou Dequan

32 Xu Long

33 Zhu Jian -VT Reject

34 Wang Jungang

35 Yi Guoqiang

37 Shan Xiaolong -VT Reject

44 Gao Qiang

45 Wu Zhizhong -VT Reject

46 Yu Chaoye

47 Li Mingyang

48 Xu Hua -VT Reject

49 Ma Yusheng

50 Wang Daping

51 Sun Tiyu -VT Reject

52 Yang Donghua

53 Gao Zhenkun

54 Zhang Dexia -VT Reject

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55 Guo Jialin -VT Reject

1G

SMAW

WPS-B-P-2112-Plug

10 Zhang Quanfa

11 Jiang Xiaohu

13 Xu Changxue VT Reject

17 Gong Huaigang

40 Sun Chengjin

41 Sun Chengzhuo

42 Cao Yihui

43 Xi Hongxiang

ZPMC CWI's present are Xu Le Feng and Zhang Huang

Test coupons will be sent to Weld Lab for Macro Etch Testing. The above noted VT rejects were rejected by ZPMC CWI Zhang Huang.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

### Summary of Conversations:

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 Eric Tsang, 150-0042-2372 , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Hernandez,Dan	Quality Assurance Inspector
<b>Reviewed By:</b>	Peterson,Art	QA Reviewer

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