

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

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-001593**Date Inspected:** 23-Feb-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sun Wei & Chen Xi**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:**

This Quality Assurance Inspector (QAI) observed various fabrication and welding practices at Zhenhua Port Machinery Company (ZPMC) on Changxing Island in Shanghai, China today for the Self Anchored Suspension Bridge for San Francisco, California.

**Orthotropic Box Girder (OBG)**

In Bay 1 this QAI observed the milling of plate edges, beveling of partial joint penetration (PJP) preparations, machining of 2 millimeter radius on edges of plates and drilling of bolt holes using hardened washer guides of un-bent closed u-rib plates. This QA Inspector also witnessed the simultaneous bending of the close u-rib panels in compliance with the special provisions. Welding was also being carried out on the panels inside of the bent closes u-ribs and tack welding closed ribs to deck plates with the gas metal arc welding (GMAW). GMAW root welds were also being made to the production mock up test (PMT) and closed u-rib to deck plate welds.

This QAI witnessed GMAW tack welding of closed ribs to deck plate DP20/PL13B, closed u-rib U134 by ZPMC welders Hau Long, welder identification 059446 on welds DP020-001-005 & 006. The Quality Control Inspector (QCI) Duan Ya Bing was observed checking the various essential welding variables. The variables recorded were as follows; voltage 30.7, amperage 332 and travel speed 512 millimeters per minute in accordance with welding procedure specification WPS-B-T-2342-U2 (U-Rib)

This QAI witnessed complete joint penetration (CJP) welding with the flux core arc welding (FCAW) process between the closed u-rib U25 and U74 by ZPMC welder Gong Zhi Wu, welder identification 059405. The weld

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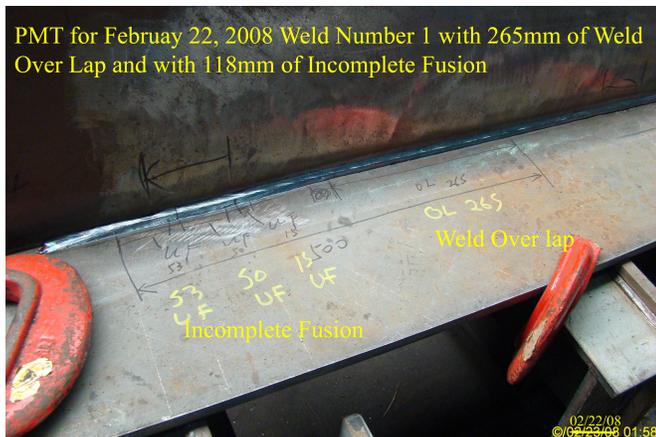
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joint number was DP002-001-010 and some of the essential welding variables were checked and recoded as follows: voltage 26/1, amperage 210 and travel speed 103 millimeters per minute in accordance with WPS-B-T-2233-B-U2-F.



## Summary of Conversations:

N/A

## 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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**Inspected By:** Berger, Bruce

Quality Assurance Inspector

**Reviewed By:** Cochran, Jim

QA Reviewer