

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-000234**Date Inspected:** 17-Jun-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 830**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:** Mr. Huang 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:** Procedure Qualification Record (PQR) Tests**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector Robert Cuellar is present at the fabrication facility of Zhenhua Port Machinery Company (ZPMC), LTD for the purpose of monitoring activities relative to the subsequent fabrication of the SFOBB Self Anchored Suspension Bridge. The following items have been observed,

The Caltrans QA Inspector observed the following personnel present, ZPMC Certified Welding Inspector (CWI) Mr. Huang Wei, ABF Representative Mr. Warren Buehler, ZPMC Representative Ms. Meng Chun Xia and also welders Jiang Xiao Hu and Zhu Hai Ping.

The Caltrans QA Inspector was present for the purpose of witnessing the continuation of ZPMC PQR's identified as HP2007144 and also a new PQR identified as HP2007143-1.

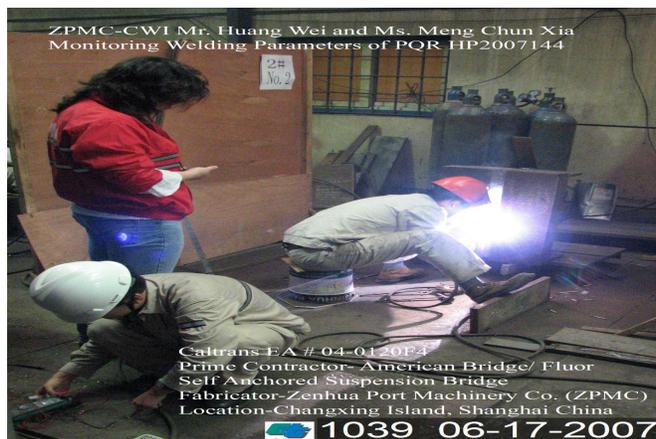
Item	Description	WBS	Dwg No.	Status
1	ZPMC PQR HP2007144	N/A	N/A	Incomplete

ZPMCPQR HP2007144 is being attempted with the shielded metal arc welding (SMAW) process in the vertical (3G) position utilizing a 4.0 mm diameter Lincoln Excalibur 9018M-MR electrode. The steel plate is identified as A709 Grade 345 HPS485W and is 90 mm thick. The PQR test plate assembly represents a single vee groove with steel backing. The AWS joint designation is B-U2a-GF. This PQR test plate assembly initially commenced on June 15th, 2007 and has nineteen (19) weld passes applied to it prior to today's continuation. Caltrans QA Inspector Mr. Bruce Berger previously has been monitoring the activities relative to this PQR prior to today's activities. The CWI listed above and assistant Ms. Meng Chun Xia have been observed monitoring, preheat, inter pass temperature, voltage, amperage, travel speed and also the visual appearance of the applied filler weld passes that have been applied to the PQR test plate assembly utilizing a AC/DC Clamp Meter brand identified as a Kyoritsu 189 and an infrared thermal measuring device, stop watch and also a artificial lighting device.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

The Caltrans QA Inspector also monitored and recorded the welding parameters utilizing a Fluke meter for amperage and voltage and also a stop watch for calculating travel speed. The welding parameter values observed are being recorded within a manually recorded hard copy of the welding parameter values as well as an electronic Xcel worksheet. The Caltrans QA Inspector observed a total of nine SMAW filler passes applied to this PQR test plate, which was not completed on this date. The Caltrans QA Inspector observed that only prototype manual tools were utilized for cleaning between weld passes. The Caltrans QA Inspector also observed that ABF representative Mr. Warren Buehler periodically monitored the welding parameters and the visual appearance of the applied filler weld passes. A Caltrans 6032 will be generated at the completion of this PQR test. Digital pictures that support today's observations are included below.



2	ZPMC PQR HP2007143-1	N/A	N/A	Incomplete
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ZPMCPQR HP2007143-1 is being attempted with the shielded metal arc welding (SMAW) process in the flat (1G) position utilizing a 4.8 mm diameter Lincoln Excalibur 9018M-MR electrode. The steel plate is identified as A709 Grade 345 HPS485W and is 90 mm thick. The PQR test plate assembly represents a single vee groove with steel backing. The AWS joint designation is B-U2a-GF. The CWI listed above and a unidentified assistant have been observed monitoring, preheat, inter pass temperature, voltage, amperage, travel speed and also the visual appearance of the applied filler weld passes that have been applied to the PQR test plate assembly utilizing a AC/DC Clamp Meter brand identified as a Kyoritsu 189 and an infrared thermal measuring device, stop watch and also a artificial lighting device.

The Caltrans QA Inspector also monitored and recorded the welding parameters utilizing a Fluke meter for amperage and voltage and also a stop watch for calculating travel speed. The welding parameter values

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

observed are being recorded within a manually recorded hard copy of the welding parameter values as well as an electronic Xcel worksheet. The Caltrans QA Inspector observed a total of ten SMAW filler passes applied to this PQR test plate, which was not completed on this date. The Caltrans QA Inspector observed that only prototype manual tools were utilized for cleaning between weld passes. The Caltrans QA Inspector also observed that ABF representative Mr. Warren Buehler periodically monitored the welding parameters and the visual appearance of the applied filler weld passes. A Caltrans 6032 will be generated at the completion of this PQR test. A digital picture that supports today's observations is included below.



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|---|------------------------------------|-----|-----|------------|
| 3 | ZPMC PQR's HP2007144 & HP2007143-1 | N/A | N/A | Incomplete |
|---|------------------------------------|-----|-----|------------|
- The identified ZPMC PQR tests described within this report appear to be progressing in general compliance with AWS D1.5 (2002) and the Special Provisions.

Summary of Conversations:

1) ZPMC representative, Mr. Huang Wei informed the Caltrans QA Inspector that the welding of these PQR test plates would continue on Monday June 18th, 2007.

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.

Inspected By:	Cuellar, Robert	Quality Assurance Inspector
Reviewed By:	McClary, David	QA Reviewer
