

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-000197**Date Inspected:** 30-May-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 800**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:** Wei Huang**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:** HP200777-1**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Bruce Berger was present to observe quality control functions related to welding, testing and fabrication procedures at the Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

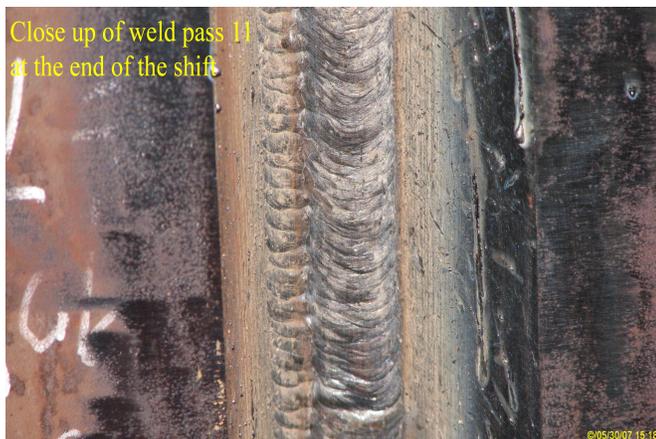
Caltrans Quality Assurance (QA) Inspector Bruce J. Berger witnessed ZPMC performing shield metal arc welding (SMAW) procedure qualification record (PQR) HP200777-1, PWPS-B-T-3213 test. The welder is identified as Mr. Zhu Hai Ping, welding passes one through eleven. The test plate material type is identified as A709 Grade HPS485W and thickness, 75 mm. The PQR complete joint penetration groove weld testing was performed in the vertical up (3G) position. The welding consumable is identified as a 4.0 mm electrode, classification E9018M MR, specification AWS A5.5. Caltrans QA observed ZPMC QA Inspector, Mr. Wei Huang and two associates monitoring and supervising the testing per AWS 5.13 criteria; amperages, voltages, travel speeds, preheat and inter-pass temperatures. Also present at the test site was American Bridge/Fluor (ABF) subcontractor, Inspectech, quality control (QC) inspector, Mr. Song Wei Min. QA observed that the wind velocity at the ZPMC testing site appear to be in conformance with AWS D1.5, paragraph 4.14.3 requirements. Welding was not completed prior to the completion of the shift, so welding will continue tomorrow morning.

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# WELDING INSPECTION REPORT

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## Summary of Conversations:

Mr. Kevin Dye and Dustin Brungardt of American Bridge/Fluor (ABF) subcontractor, Inspectech QC inspectors arrived in the afternoon to observe and comment on the ZPMC welders technique, The welder was continuing to weld with an L-pattern allowing the puddle to somewhat solidify before continuing to drop back down in to it and weld. Mr. Dye recommended to Mr. Zhu that he should use a tighter z-pattern so the puddle would not begin to solidify.

## 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:** McClary, David

QA Reviewer

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