

**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-003115**Date Inspected:** 10-Jun-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1430**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2230**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**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:** Tower and OBG Fabrication**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following:

Orthotropic Box Girder (OBG) Fabrication:

Bay 1

The QA Inspector performed digital photography of deck plate closed rib Production Monitoring Test (PMT) Macro Etch specimens representing deck plates DP597-001, DP581-001 and DP552-001 which were welded today.

Welding of this PMT was started shortly after midnight and the macroetch specimens were visually inspected by QA personnel on the day shift. This QA Inspector measured and recorded the weld penetration of all fifteen macroetch samples and this information is documented on an Excel spreadsheet titled "SAS OBG PMT Macroetch Log" and a copy of this file is posted on the Caltrans "Team China" internal sever computer system. Copies of the digital photographs of each of the macroetch specimens are also posted on the Caltrans "Team China" common drive which is accessible to all Quality Assurance personnel including Task Leaders and Structural Materials Representatives. Below is a digital photograph showing the weld specimens as they were found in the ZPMC QC office near bay 1 prior to QA initiation of the photography. These specimens appear to have become wet due to today's rain and several of the macroetch surfaces exhibit a layer of rust. The QA Inspector wiped each specimen to remove rust and other contaminants prior to taking the photographs.

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# WELDING INSPECTION REPORT

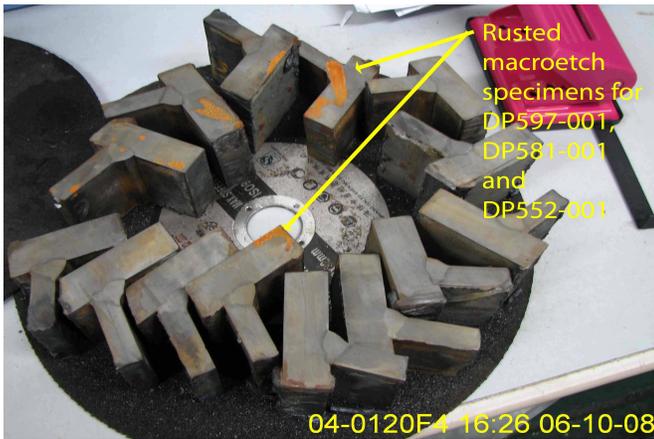
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The QA Inspector performed ultrasonic inspections of 100% length of floor beam complete joint penetration (CJP) groove welds: FB003-028-032 and FB003-028-044. ZPMC had previously documented they have performed UT inspections of these same two welds earlier this shift. ZPMC is required to perform ultrasonic inspection of 25% of each CJP weld and the project specifications allow ZPMC to perform 100% of one weld instead of four individual partial UT weld inspections. Today ZPMC completed 100% UT inspection of two welds on FB003-028 and the "Notification of Witness inspection document "00508" that was issued today states the following 8 welds are to be UT inspected: "-008, -010, -020, -022, -032, -034, -044 and, -046."

The QA Inspector also performed UT inspections of 100% length of FB003-029-032 and FB003-029-044, and the ZPMC "Notification of Witness inspection document "00508" that was issued today states the following 8 welds are to be UT inspected: "-008, -010, -020, -022, -032, -034, -044 and, -046." ZPMC is required to perform ultrasonic inspection of 25% of each CJP weld and the project specifications allow ZPMC to perform 100% of one weld instead of four individual partial UT weld inspections. Items observed appear to comply with project specifications. See the TL-6027 "Ultrasonic Test Report" dated today for additional information.



### Summary of Conversations:

No significant conversations occurred.

### 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 Patrick Lowry (858) 344-2712, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Dawson,Paul	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer

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