

**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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000465**Date Inspected:** 12-Sep-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	Jiang Weifeng		
<b>Inspected CWI report:</b>	Yes	No	N/A
<b>Electrode to specification:</b>	Yes	No	N/A
<b>Qualified Welders:</b>	Yes	No	N/A
<b>Approved Drawings:</b>	Yes	No	N/A

<b>CWI Present:</b>	Yes	No	
<b>Rod Oven in Use:</b>	Yes	No	N/A
<b>Weld Procedures Followed:</b>	Yes	No	N/A
<b>Verified Joint Fit-up:</b>	Yes	No	N/A
<b>Approved WPS:</b>	Yes	No	N/A
<b>Delayed / Cancelled:</b>	Yes	No	N/A

**Bridge No:** 34-0006**Component:** Welder Performance Qualifications**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding being performed for welder qualification. The QA Inspector observed the Flux Cored Arc Welding (FCAW) Process being used in the 1G position with ceramic backing strips attached. The QA Inspector observed several welders placing root passes in their test pieces utilizing the above FCAW process with ZPMC approved weld procedure specification WPS-B-T-2231-T. The QA Inspector observed QA/QC Engineer Jiang Weifeng of 3rd party inspection agency Moody International, inspecting the root passes of the test pieces. Mr. Weifeng rejected 4 of the test samples for cracks in the face side of the root passes and a 5th test piece because of worm hole porosity throughout the entire length of the root side of the root pass. There had been a total of 28 root passes placed at the time the 5th test piece was rejected for a failed root pass. The welders who had not failed the root pass inspection by Mr. Weifeng, were either continuing to weld or had completed welding their test pieces. The attached photograph provides additional detail of the test piece with the worm hole porosity.

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# WELDING INSPECTION REPORT

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## Summary of Conversations:

There were 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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Franco,Charlie	Quality Assurance Inspector
<b>Reviewed By:</b>	Cochran,Jim	QA Reviewer

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