

**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: 13.9/14.3,0.0/1.6File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000832**Date Inspected:** 13-Nov-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 2300**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Xu Lefeng**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:** Caltrans Mock-Up**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Ken Jobes, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, to randomly monitor welding and Quality Control (QC) functions. While on site, the QA Inspector observed and/or discovered the following:

Caltrans QA Inspector observed the welding of p290-8 stiffener to A67 skin plate for the 114M Mock-Up Interior Splice Assembly, Skin Plate C. This weld is identified as MUC-A67-3B. Welding Procedure Specification (WPS) B-T-2231-TC-U5-F, Revision 1, for Flux Cored Arc Welding (FCAW) was being used. The welder was Bai Wenming (Welder I.D. No. 040434). ZPMC American Welding Society (AWS) Certified Welding Inspector (CWI), Xu Lefeng (CWI No. 07031411) and Bureau Veritas Inspector, Li Gang were present during this welding. The QA Inspector verified compliance with the WPS in the following areas using visual observation, calibrated Fluke ampmeter, Tempil stick, tape measure and stop watch, as applicable.

Electrode Classification (E71T-1), Electrode Diameter (1.4 mm), Amperage (280 - 350), Voltage (28 - 32.5), Gas Shielding (100% CO<sub>2</sub>), Gas Flow Rate (18 - 25 L/min), Preheat/Interpass Temperature (110 C Minimum), Travel Speed (182 - 442 mm/Min.)

The QA Inspector also observed that the QC Inspector was documenting the parameters as welding progressed and that the random verification by the QA Inspector essentially confirmed the QC documentation for the random sample, and that QC documentation showed compliance with the WPS up to the time of the random sample. This weld was not completed during this shift.

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# WELDING INSPECTION REPORT

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## Summary of Conversations:

As identified within the contents of this report.

## 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>	Jobs, Kenneth	Quality Assurance Inspector
<b>Reviewed By:</b>	Cochran, Jim	QA Reviewer

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