

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-000044**Date Inspected:** 01-Nov-2006**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:** Liu Liu**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:** N/A**Summary of Items Observed:**

This Office of Structural Materials Quality Assurance Inspector observed welding and quality control functions during procedure qualification testing at the ZPMC facility in Shanghai, Republic of China today

Item	Description	WBS	Dwg No.	Status
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This Quality Assurance Inspector observed the Quality Control Inspector, Liu Liu witnessing the running of the flux core arc welding procedure qualification test HP2006103 in the shop at ZPMC. The test was being run to Paragraph 5.12 at the maximum heat input. The welder was Lei Li Chao, employee number 053619 who was using Hyundai, Supercored 71, and 1.4 millimeter diameter wire by hand. A package of paperwork was received from the ZPMC Quality Control Manager which contained the flux core wire certification paperwork, material test reports for the A709 grade 345 base plate, Co2 gas paperwork, and the certification paperwork for the infrared temperature gage and volt/ampere meter. Seven passes were completed when the travel times and the heat input were calculated. It was found that the travel speeds were way out side the allowed +/- 10% and the heat input was only half of what the pre-welding procedure specification called for. The weld was scrapped and plans were made to re-run the procedure qualification test tomorrow with some changes to the targeted heat input. The targeted heat input had been 3.5, however the obtained was 1.89.

WELDING INSPECTION REPORT

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Procedure Qualification HP-2006103 in 1G position by the FCAW process being hand welded by welder Lei Li Chao of ZPMC



Summary of Conversations:

A discussion was held with Mr. Liu concerning the low heat input and the out of tolerance travel speeds. Mr. Liu felt that mistakes had been made in the calculations, but upon doing the calculations himself agreed to the previous findings.

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:	Berger, Bruce	Quality Assurance Inspector
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Reviewed By:	Lowry, Patrick	QA Reviewer
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