

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-001060**Date Inspected:** 11-Dec-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:** Chen Xi**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:**

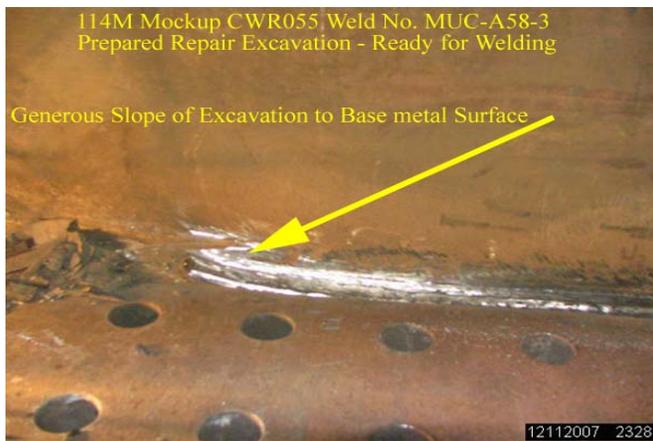
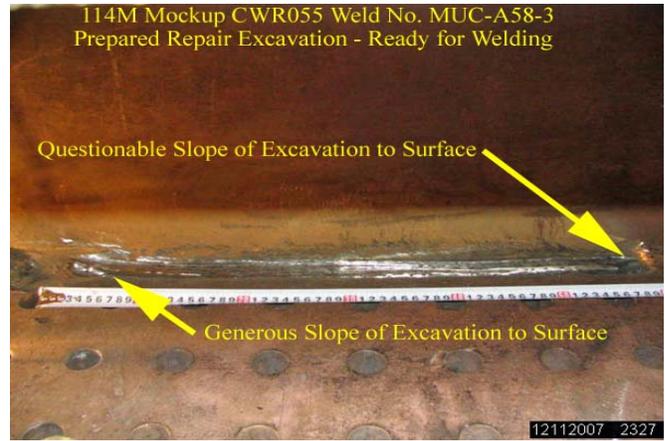
Caltrans Quality Assurance (QA) Inspector, Ken Jobes, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, to randomly monitor welding and Quality Control (QC) functions. While on site, the QA Inspector observed and/or discovered the following:

The QA Inspector observed the welding and grinding between passes on the repair of Weld No. MUC-A58-3 on the 114M Tower Mock-Up. This repair is covered by CWR 055. It was observed that the weld cavity (excavation) had a generous slope to the base metal on one end, but a questionable slope on the other end. See attached pictures. The QA Inspector observed that the repair excavation was approximately 580 mm long. The Drawing No. is MUC-A58. The base material listed on ZPMC's documentation showed ASTM A709 Grade 345, which corresponds to the drawing - ASTM Grade 50. The Welding Procedure Specification (WPS) being used was WPS-345-FCAW-1G(1F)-Repair. The QA Inspector observed that CWI Chen Xi (AWS CWI No. 07072021) was present during the welding and was recording actual welding parameters. The welder was Jiang Zhou (Welder No. 040261), whose qualifications for this welding are listed in ZPMC's Master List of Welders/Welding Operators/Tack Welders, Revision 6. This weld was being made using Flux Cored Arc Welding (FCAW) in the flat groove (1G) welding position. The QA Inspector observed that ZPMC's documentation of welding parameters for Minimum Preheat/Interpass Temperature, Amperage, Voltage and Travel Speed were within the ranges of the WPS for the first three passes. The welding repair was completed, but not blended into the adjacent weld and base metal.

All observations appeared to meet the requirements of the job specifications.

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.

Inspected By: Jobs, Kenneth

Quality Assurance Inspector

Reviewed By: Cochran, Jim

QA Reviewer