

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-001407**Date Inspected:** 10-Feb-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1630**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) and Tower Mock Up:

CWI Inspector: Mr. Wu Ming Kai

Bay 3

The QA Inspector observed ZPMC welder Mr. Han Chang Hou stencil 59464 is preparing to use welding procedure specification WPS-B-T-2221-B-L2C-S-1 submerged arc welding process for a groove weld on OBG deck plate weld DP054-01-011. The QA Inspector performed random visual inspection of the weld groove where the submerged arc weld is to be deposited. This weld joint had previously been welded from the opposite side of the plate and the top surface of this weld groove has been backgouged and ground. AWS D1.5 requires backgouged surfaces to be ground to obtain a bright metal condition prior to welding. The QA Inspector observed several areas where the grinding had not fully removed the backgouge oxidized surfaces. The QA Inspector asked ZPMC Quality Control (QC) Inspector Mr. Chen Shingang if he had visually observed this weld groove has areas that had not been fully ground to remove the oxidized surfaces. Mr. Shingang said he will have ZPMC workers grind the oxide surfaces prior to welding. The QA Inspector informed ZPMC QC Certified Welding Inspector Mr.

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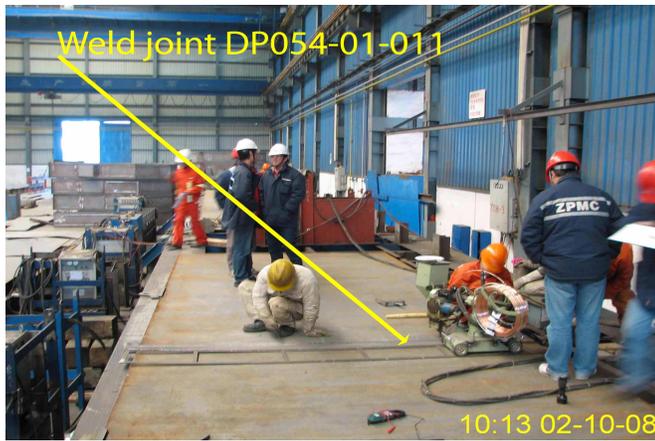
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Wu Ming Kai that areas of the weld groove had not been fully ground to remove air arc oxidized surfaces. Mr. Ming said he will ensure Mr. Chen Shingang verified all other weld grooves are properly ground prior to welding. Following completion of the grinding, the QA Inspector observed the areas to be welded have been ground to a bright metal condition. The QA Inspector observed a welding current of approximately 460 amps, 28.8 volts, a travel speed of 520 mm per hour, and the base material had been preheated to a minimum of 10° C. Items observed by the QA Inspector do not appear to fully comply with project specifications.

The QA Inspector observed no welding taking place in bay 3.

Bays 1, 2 and 7

The QA Inspector observed no welding taking place in these bays due to the Chinese New Year Holiday.



Summary of Conversations:

See above for summary of 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.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer
