

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-002071**Date Inspected:** 11-Apr-2008**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:** 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:

CWI Inspector: Mr. Chao Chen Sun

Orthotropic Box Girder (OBG) and Tower Fabrication:

New Tower Shop

The QA Inspector observed ZPMC welder Mr. Xia Yong Liu stencil 48882 is using welding procedure specification WPS-B-T-2221-B-L3C-S to make submerged arc groove weld ESD1 SA16 A/K-15A. The QA Inspector observed a welding current of approximately 620 amps, 31.5 volts, a travel speed of 470 mm per hour, and the base material is between 110°C and 230°C. Items observed by the QA Inspector appear to comply with project specifications.

The QA Inspector observed ZPMC welder Mr. XueYian stencil 40634 is using welding procedure specification WPS-B-T-2221-B-L3C-S to make submerged arc groove weld ESD1 SA227 A/H-16A. The QA Inspector observed a welding current of approximately 670 amps, 33.5 volts, a travel speed of 620 mm per hour, and the base material temperature is between 110°C and 230°C. Items observed by the QA Inspector appear to comply

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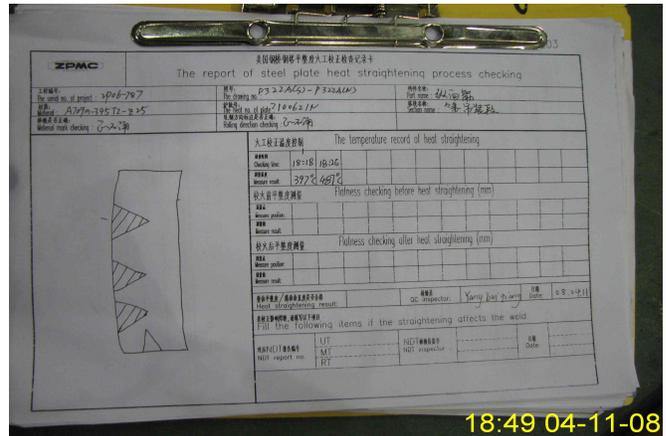
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with project specifications.

The QA Inspector observed ZPMC QC ultrasonic Inspector Mr. Xue Hai Yong performing ultrasonic weld inspection of weld SSDI SA16 F/G-6A.

American Bridge / Fluor representative Mr. Dave LaRue informed the QA Inspector that critical weld repair (CWR) document T-CWR-001 incorrectly lists plate SA225-(W-1) instead of plate SA225-(E-1). Mr. LaRue said plate E-1 requires a CWR and he is going to correct the typographic error. Mr. LaRue gave Caltrans a copy of the corrected document.

The QA Inspector observed ZPMC personnel perform heat straightening of plate P322A (S) and P322A (N) 002 as directed by HSR1(T)-628. This HSR has been approved by Mr. Hu Gang on 04-11-2008. The QA inspector observed Quality Control Inspector Mr. Yang Ban Giang monitoring the heat temperature and the maximum temperature recorded by Mr. Giang is 480°C. which is below the maximum allowable temperature listed in the HSR document. This work is taking place on an elevated platform approximately three feet above the adjacent floor and workers are using torches to apply heat from both sides of the plate at the same time. Items observed appear to comply with project specifications. See the photographs below for additional information.



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: Hager,Craig

QA Reviewer