

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-003628**Date Inspected:** 01-Aug-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 2230**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:** 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 Fabrication:

QA Inspector Mr. Shen Xuejun

Heavy Duty Bay #1

The QA Inspector completed Visual and Ultrasonic (UT) inspection of the entire length of welds SSD1-SA178C/D-1, SSD1-SA178C/D-2, SSD1-SA178C/D-4, SSD1-SA18A/E-20 and SSD1-SA18A/E-21 to determine if they comply with AWS D1.5 requirements. ZPMC had previously accepted ultrasonic inspections of these welds. Items observed by the QA Inspector appear to comply with project specifications. See the TL6027 ultrasonic test report for additional information.

Tower Stiffener weld SSD1-SA178A/D-9 has several 4 & 5 mm deep gouges in the base material approximately 25 mm from the edge of the weld and the end surface of the weld is approximately 5mm below the adjacent surfaces of the edge of the plates. This weld has been ultrasonically accepted by ZPMC personnel the weld does not have any marking to indicate it has been visually accepted by ZPMC QC personnel. AWS requires the weld to

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be visually accepted prior to conducting NDE/ultrasonic inspections. ABF Inspector Mr. Liu Cheng and ZPMC QC inspector Mr. Shen Xuejun were informed of these problems and Mr. Xuejun said ZPMC will repair this weld and an additional UT inspection will need to be performed. See the photographs below for additional information.

OBG Assembly:

ZPMC informed QA personnel that the welds on side panels SP38A, BP19A and SP12A are ready for QA to perform magnetic particle inspections of the welds. The QA Inspector contacted ZPMC translator Mr. Shen Xuejun to assist in the location of these side panels. After locating the side panels listed above it was determined that ZPMC has removed and secured all of the 220 volt power cords and there are no workers anywhere near these welds and the power supply panel is too far away from the welds to allow QA to use conventional electric extension cords. Due to this problem the QA Inspector was not able to perform magnetic particle inspections of these welds.



Summary of Conversations:

See above.

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 Joshua Ishibashi 13764710411, who represents the Office of Structural Materials for your project.

Inspected By: Dawson,Paul

Quality Assurance Inspector

Reviewed By: Carreon,Albert

QA Reviewer