

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-007623**Date Inspected:** 18-Jun-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**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 and Tower Fabrication**Summary of Items Observed:**

CWI Inspectors: Mr. Bo Zhan, Mr. Liu Fa Wein, Mr. Lin Li

On this date CALTRANS OSM 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:

Prior to Caltrans QA Inspectors' concurring with issuance of OBG deck plate closed rib green tag releases a review of the ultrasonic inspection database is performed to verify all closed rib tack weld repair locations have been ultrasonically accepted. Today this QA Inspector, Mr. Paul Dawson, performed data entry of ultrasonic inspection information from the field generated Ultrasonic inspection data sheets onto the common drive computer database for the following OBG deck panels: DP101-001, DP127-002, DP155-001, DP182-001, DP290-001, DP317-001, DP371-001 and 506-001.

Segment Assembly Area

The QA Inspector observed ZPMC welder Mr. Sun Lingling, stencil 048047 is using shielded metal arc process to tack weld angle braces on to the top surfaces of various bottom plate "T" stiffeners at segment 5AE/5BE between panel point 31 and panel point 32. This QA Inspector observed a welding current of approximately 170 amps. The QA Inspector observed the base material where the welds are being made appears to have paint which was not completely removed. The QA Inspector also observed ZPMC welder Mr. Mei Lai, stencil 44749 was welding on

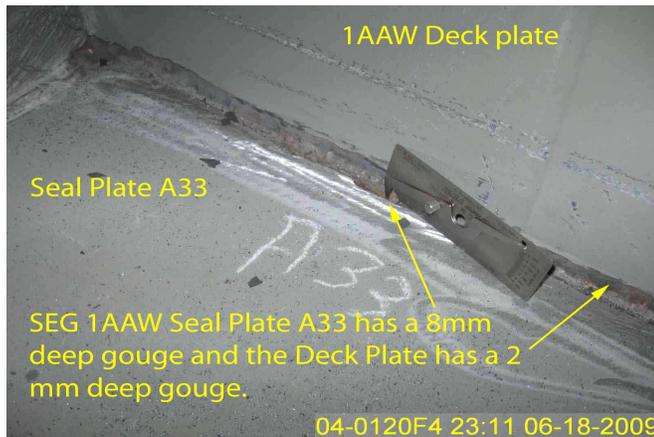
WELDING INSPECTION REPORT

(Continued Page 2 of 3)

similar angle stiffeners on side plates between panel point 30 and panel point 31 and the weld joints where he was welding also have paint in the areas where the welds were being made. The QA Inspector asked ZPMC QC Inspector Mr. Wang Wei Ming to inform the ZPMC CWI that having paint on these surfaces is a violation of AWS D1.5. A short while later ZPMC CWI Mr. Li Jia arrived and he informed this QA Inspector that the painted surfaces will be cleaned. The QA Inspector informed Mr. Li Jia that ZPMC appears to have welded over painted surfaces and that AWS D1.5 requires all surfaces that are to be welded need to be clean and that cleaning the paint after completion of the welds does not eliminate the problem. Mr. Li Jia informed this QA Inspector that the welds will be removed and the areas will be cleaned prior to additional welding. This QA Inspector observed that no ZPMC personnel worked on these welds for the remainder of the shift and this QA Inspector issued an incident report to document this problem. See the photographs below for additional information.

OBG Bay 2

SMR Mr. Eric Tsang requested QA Inspectors to perform dimensional gap measurements between the edges of seal plates to deck and side plates on segment 1AAW as shown on request for information RFI number RFI-ZPM-000702R00. This QA Inspector along with QA Inspector Mr. Larry Viars performed root gap measurements which were forwarded to Mr. Tsang. This QA Inspector observed ZPMC appears to have air carbon arc gouged the top of the back edge of fill plates at locations A32, A33, A34 and A39 to a depth of approximately 8 mm and the baseplate to a depth of approximately 2mm on OBG Segment 1AAW. These gouges appear to be the result of ZPMC removing unauthorized welds. The approved design shows these fill plate joints are to have a tight fit with the deck plate and the junction of these plates are not to be welded. The QA Inspector asked ZPMC CWI Mr. Chen Xi why these plates have gouges and since Mr. Xi speak very little English this question did not get answered. This QA Inspector informed Mr. Xi that this QA Inspector is going to issue an incident report to document this problem.



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 Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Inspected By:	Dawson,Paul	Quality Assurance Inspector
----------------------	-------------	-----------------------------

Reviewed By:	Carreon,Albert	QA Reviewer
---------------------	----------------	-------------