

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-007133**Date Inspected:** 14-May-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 Fabrication**Summary of Items Observed:**

CWI Inspectors: Mr. Wu Zhi Cheng, Mr. Liu Weiwei

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: DP339-002, DP366-001, DP396-001, DP447-001, DP504-001, DP207-001, DP261-001, DP339-001, DP342-001, DP369-001, DP372-001, DP421-001, DP423-001, DP475-001, DP448-001, DP478-001, DP450-001 and DP477-001.

OBG Assembly Area

ZPMC issued an "Inspection Notification Sheet" #2931 requesting QA to perform ultrasonic inspections of floor beam weld FB024-006-146. ZPMC ultrasonic Inspectors had previously rejected this weld and today this QA Inspector, Mr. Paul Dawson, observed the weld has been repaired and the weld is identified as being ultrasonically accepted by ZPMC ultrasonic Inspection personnel. This QA Inspector performed random ultrasonic inspections

WELDING INSPECTION REPORT

(*Continued Page 2 of 3*)

of the weld and items observed by this QA Inspector appear to comply with AWS D1.5 UT requirements. For additional information on these inspections see the TL6027 Ultrasonic Test Report.

OBG Bay 3

The QA Inspector observed ZPMC welder Mr. Yang Xhue, stencil 057795 is using shielded metal arc process WPS-B-P-2112 to make fillet tack welds on floor beam weld FB015-041-101. The QA Inspector observed a welding current of approximately 150 amps and the QA Inspector confirmed the welding electrode storage oven is connected to electrical power and is being kept hot. Items observed by the QA Inspector appear to comply with project specifications.

The QA Inspector observed ZPMC welder Mr. Hong Yongli, stencil 044801 is using flux cored welding process WPS-B-T-2231-B-U2-F-1 to make groove welds on floor beam FB02-010-101. The QA Inspector observed a welding current of approximately 300 amps, 29.3 volts and QC representatives are monitoring the welding and the base material preheat. Items observed by the QA Inspector appear to comply with project specifications.

The QA Inspector observed ZPMC welder Ms. Huang Xinlan, stencil 044780 is using submerged arc welding procedure specification WPS-B-F-2221-B-L2C-S-2 to make floor beam groove butt weld FB020-008-101. The QA Inspector observed ZPMC Quality Control personnel monitoring this welding and the QA Inspector measured a welding current of approximately 580 amps and 31.0 volts. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Bay 6

This QA Inspector performed random ultrasonic inspections of approximately 10 percent length of OBG floor beam weld FB024-006-146 R1 (repair 1). This weld had previously been ultrasonically inspected and accepted by ZPMC inspection personnel. The QA Inspector observed the weld that was ultrasonically inspected by this QA Inspector appear to comply with AWS D1.5 UT requirements. For additional information on this inspection see the TL6027 Ultrasonic Test Report.

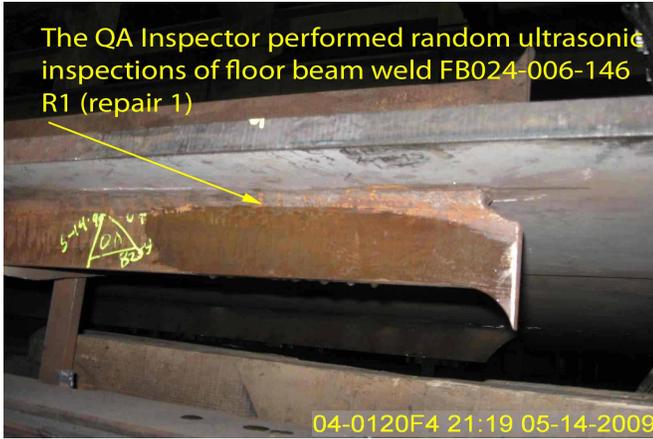
OBG Bay 2

The QA Inspector observed ZPMC welder Mr. Tian Zhaoquan, stencil 045246 is using the shielded metal arc welding process to make a weld repair on OBG segment 1C weld 033. The QA Inspector observed a welding current of approximately 190 amps, the base material where the tack welding is being made had been preheated with a torch and that QC personnel were monitoring this welding. Items observed on this date appeared to generally comply with applicable contract documents.

The QA Inspector observed ZPMC welder Mr. Yun Chuansheng, stencil 045221 is using flux cored welding procedure WPSB-P-2132 process to make OBG segment 1C weld 185. The QA Inspector observed a welding current of approximately 310 amps, 29.5 volts and the base material where the tack welding is being made had been preheated with a torch and that QC personnel were monitoring this welding. Items observed on this date appeared to generally comply with applicable contract documents.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)



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.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer
