

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-006109**Date Inspected:** 28-Mar-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**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 Fabrication**Summary of Items Observed:**

CWI Inspector: Mr. Zhu Zhong Hai

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:

OBG Bay 19

This QA Inspector performed random ultrasonic inspections of approximately 10 percent length of OBG Bottom Plate welds BP026-005-001, BP026-005-002 and BP026-005-001. These welds had previously been ultrasonically inspected and accepted by ZPMC inspection personnel. The QA Inspector observed the welds that were 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.

The QA Inspector observed ZPMC welder Mr. Wang Yong, stencil 062807 is using flux cored welding procedure specification WPS-B-T-2132-3 to make bikepath stiffener to baseplate fillet weld BK004A3-003-025. The QA Inspector observed the base material had been preheated with a torch and the QA Inspector measured Mr. Wang Yong having a welding current of approximately 330 amps and 31.5 volts. The QA Inspector observed the spool of flux cored welding electrode wire being used by Mr. Wang Yong does not have any date of first use written on the side of the spool and there is no other indication as to when the flux cored welding electrode material had

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initially had the hermetically seal removed from the spool of flux cored welding electrode. The QA Inspector asked ZPMC QC representative Mr. Xutao when the flux cored welding electrode wire had first been exposed to the atmosphere and Mr. Xutao said it had been first been opened and used earlier today, and he had Mr. Wang Yong write today's date on the spool of welding electrode. Items observed by the QA Inspector do not appear to fully comply with project specifications. See the photograph below for additional information.

The QA Inspector observed ZPMC welder Mr. Tan Xihong, stencil 062810 is using welding procedure WPS-B-P-2113 to make shielded metal fillet tack welds on stiffeners that attach to bikepath BK004A6-002. The QA Inspector measured a welding current of approximately 120 amps. QA Inspector observed the base material had been preheated with a torch. Items observed by the QA Inspector appear to comply with project specifications.

The QA Inspector observed ZPMC welder Mr. Zhang Baodao, stencil 062738 is using welding procedure WPS-B-T-2132 to make flux cored fillet tack welds on stiffeners that attach to bikepath BK004A6-002. The QA Inspector measured a welding current of approximately 120 amps. QA Inspector observed the base material had been preheated with a torch. Items observed by the QA Inspector appear to comply with project specifications.

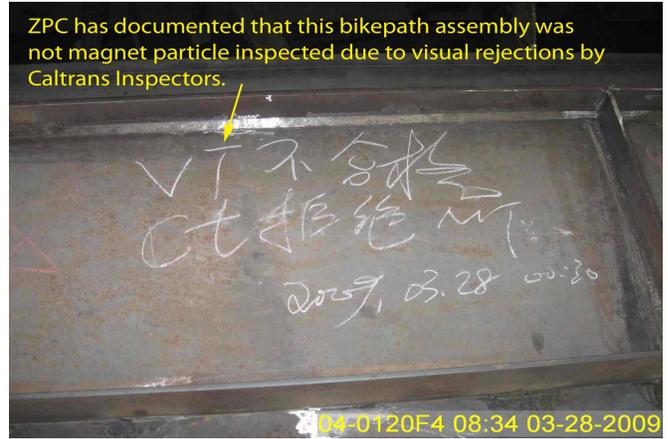
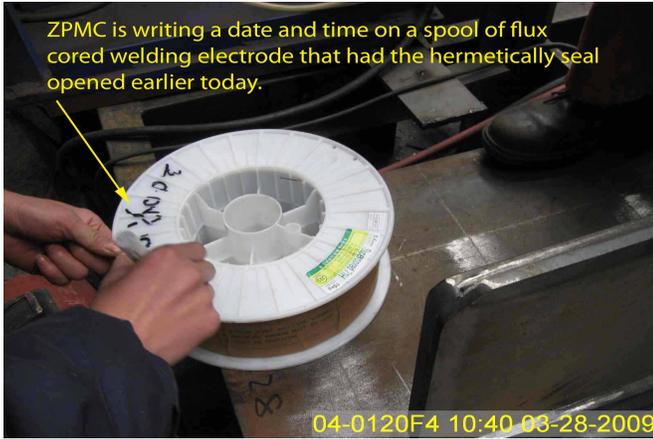
The QA Inspector observed ZPMC welder Mr. Zhang Jingfu, stencil 062747 is using welding procedure WPS-B-P-2113 to make shielded metal fillet tack welds on suspender bracket stiffener weld SB007-048-054. The QA Inspector measured a welding current of approximately 108 amps. The QA Inspector observed Quality Control representative Mr. Xutao monitoring this welding. Prior to tack welding the QA Inspector observed the base material had been preheated with a torch. Items observed by the QA Inspector appear to comply with project specifications.

The QA Inspector observed ZPMC welder Mr. Zhang Jingfu, stencil 062747 is using welding procedure WPS-B-P-2113 to make shielded metal fillet tack welds on suspender bracket stiffener weld SB008-048-029. The QA Inspector observed Quality Control representative Mr. Xutao monitoring this welding. The QA Inspector measured a welding current of approximately 108 amps. Prior to tack welding the QA Inspector observed the base material had been preheated with a torch. Items observed by the QA Inspector appear to comply with project specifications.

Yesterday ZPMC presented Caltrans Quality Assurance personnel with a notification that ZPMC has completed visual and magnetic particle inspections of welds on Bikepath assembly BK-004A1-A6. Caltrans Quality Assurance Inspectors performed visual inspections on this assembly last night and they visually rejected several of the fillet welds due to overlap at the bottom toe of the welds. Today the QA Inspector asked ZPMC Quality Control CWI Mr. Zhu Zhong Hai the status of the rejected welds. Mr. Zhu Zhong Hai informed the QA Inspector these rejected welds will be weld repaired. The QA Inspector informed Mr. Zhu Zhong Hai that since additional welding is to be performed ZPMC will need to perform additional magnetic particle inspections of these weld repair areas. See the photograph below for additional information.

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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 Serge Sinevod phone: 134-8257-0045 , who represents the Office of Structural Materials for your project.

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