

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021983**Date Inspected:** 18-Mar-2011**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**Summary of Items Observed:**

CWI Inspectors: Mr. Cui Zheng Hua, Mr. Man-Kit 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. This QA Inspector observed the following:

OBG Bay 14

This QA Inspector observed ZPMC welder Mr. Yang Yunfeng, stencil 215553 used shielded metal arc welding procedure WPS-345-SMAW-2G(2F)-FCM-Repair -1 to make OBG segment 14E weld SEG3019U-063. This QA Inspector observed a welding current of approximately 240 amperes (amps), the base materials were preheated with an electrical heater and Mr. Yang Yunfeng appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Zhengbin, stencil 216086 used shielded metal arc welding procedure WPS-B-P-2212-TC-U4B-FCM-1 to make OBG segment 14E weld SEG3019BB-017. This QA Inspector observed a welding current of approximately 240 amps the base materials were preheated with an electrical heater and Mr. Wang Zhengbin appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

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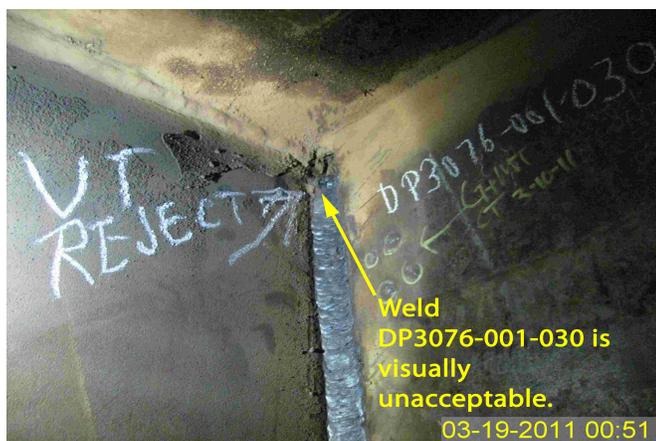
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This QA Inspector observed ZPMC welder Mr. Zhao Guanglin, stencil 044779 used shielded metal arc welding procedure specification WPS-345-SMAW-4G(4F)-FCM-Repair-1 to make OBG segment 14E repair weld SEG3019N-272. ZPMC QC informed this QA Inspector that weld repair document B-WR-20407 documents this weld repair. This QA Inspector observed a welding current of approximately 150 amps, the base materials were preheated with a torch and Mr. Zhao Guanglin appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Jinjiu stencil 043661 used shielded metal arc welding procedure specification WPS-345-SMAW-2G(2F)-FCM-Repair-1 to perform OBG segment 14E repair welds SEG3019AP-027, 031, 035 and 039. ZPMC QC informed this QA Inspector that weld repair document B-WR-20462 documents this weld repair. This QA Inspector measured a welding current of approximately 180 amps. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Trial Assembly

ZPMC issued "Inspection Notification Sheet" number 08574 item #1 informing Caltrans QA that ZPMC is requesting ultrasonic inspections (UT) of OBG segment 13AE complete joint penetration welds DP3076-001-014, 023, 029, 030 and 242. This QA Inspector visually observed the top end of weld DP3176-001-030 appears to have weld slag and overlap and this area had been previously marked by an unknown person as needing to be ground and MT inspected. No ZPMC QC Inspectors were near this location and this QA informed dayshift Caltrans QA personnel to follow up on this visual rejection. This QA Inspector performed random visual and ultrasonic inspections of the welds listed above which had been previously tested by ZPMC personnel and items observed by this QA Inspector appear to comply with AWS D1.5 UT requirements. For additional information on these inspections see this QA Inspector's TL6027 Ultrasonic Test Report and the photographs below.



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 James Devey +8615000026784, who represents the Office of Structural Materials for your project.

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Inspected By:	Dawson,Paul	Quality Assurance Inspector
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Reviewed By:	Riley,Ken	QA Reviewer
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