

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-023822**Date Inspected:** 17-Apr-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** An Qing Xiang**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 Components**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector, Anand Upadhye was present during the times noted above for observations relative to the work being performed.

WELDING

This QA Inspector observed the following work in progress:

BAY 14

This QA Inspector observed ZPMC qualified welding personnel identified as 069841, 066261 perform welding by Shielded Metal Arc Welding (SMAW), on Floor beam to Sub assembly part SA3416A weld at panel point 128.7, of OBG Segment 14W. Weld joint is identified as SEG3020B-029. ZPMC Quality Control (QC) Inspector identified as Zhu Lin was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-P-2214-Tc-U4b-FCM-1. This QA Inspector noted welding variables were 135~150 amperes and 23.7 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 045246 perform repair welding by Shielded Metal Arc Welding (SMAW), on Vertical shear plate to Anchor plate weld of OBG Segment 14W. Weld joint is identified as SEG3020BB-056. ZPMC Quality Control (QC) Inspector identified as Zhu Lin was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-345-SMAW-4G (4F)-FCM-Repair-1 and Welding repair report B-WR20713. This QA Inspector noted welding variables were 140~160 amperes and 22.7 volts, which appears to be in compliance with the approved WPS. See attached picture.

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This QA Inspector observed ZPMC qualified welding personnel identified as 066361 perform repair welding by Shielded Metal Arc Welding (SMAW), on Vertical shear plate to Anchor plate weld of OBG Segment 14W. Weld joint is identified as SEG3020BB-011. ZPMC Quality Control (QC) Inspector identified as Zhu Lin was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-345-SMAW-4G (4F)-FCM-Repair-1 and Welding repair report B-WR20713. This QA Inspector noted welding variables were 155~175 amperes and 22.2 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified NDT personnel perform Ultrasonic testing on Anchor plate to Side plate weld of OBG Segment 14W. Weld joint is identified as SEG3020AQ-025. ZPMC NDT personnel found a total of 11 Class A indications on the weld joint. See attached picture.

This QA Inspector observed ZPMC qualified welding personnel identified as 067949 perform welding by Flux Cored Arc Welding (FCAW), on Deck panel diaphragm to Deck panel diaphragm weld at panel point 126.5, of OBG Segment 14W. Weld joint is identified as SEG3020N-011. ZPMC Quality Control (QC) Inspector identified as Zhu Lin was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-T-2233-ESAB. This QA Inspector noted welding variables were 230~245 amperes and 25.4 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 066881 perform welding by Flux Cored Arc Welding (FCAW), on Deck panel diaphragm to Deck panel diaphragm weld at panel point 125.5, of OBG Segment 14W. Weld joint is identified as SEG3020S-054. ZPMC Quality Control (QC) Inspector identified as Zhu Lin was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-T-2233-ESAB. This QA Inspector noted welding variables were 245~260 amperes and 25 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 067275 perform welding by Flux Cored Arc Welding (FCAW), on Deck panel diaphragm to Deck panel diaphragm weld at panel point 125.5, of OBG Segment 14W. Weld joint is identified as SEG3020T-318. ZPMC Quality Control (QC) Inspector identified as Zhu Lin was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-T-2233-ESAB. This QA Inspector noted welding variables were 240~250 amperes and 24.7 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 067888 perform welding by Flux Cored Arc Welding (FCAW), on Deck panel diaphragm to Deck panel diaphragm weld at panel point 127, of OBG Segment 14W. Weld joint is identified as SEG3020L-031. ZPMC Quality Control (QC) Inspector identified as An Qing Xiang was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-T-2233-ESAB. This QA Inspector noted welding variables were 235~245 amperes and 25.1 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 066239 perform welding by Flux Cored Arc Welding (FCAW), on Deck panel diaphragm to Deck panel diaphragm weld at panel point 126.5, of OBG Segment 14W. Weld joint is identified as SEG3020N-013. ZPMC Quality Control (QC) Inspector identified

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as An Qing Xiang was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-T-2233-ESAB. This QA Inspector noted welding variables were 225~245 amperes and 25.4 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 066421 perform welding by Flux Cored Arc Welding (FCAW), on Deck panel diaphragm to Deck panel diaphragm weld at panel point 126, of OBG Segment 14W. Weld joint is identified as SEG3020Q-048. ZPMC Quality Control (QC) Inspector identified as An Qing Xiang was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-T-2233-ESAB. This QA Inspector noted welding variables were 240~250 amperes and 24.9 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 066695 perform welding by Flux Cored Arc Welding (FCAW), on Traveler Rail TR3003. Weld joint is identified as TR3003-TR1-001-016. ZPMC Quality Control (QC) Inspector identified as Sun Tian Liang was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-T-2233-ESAB. This QA Inspector noted welding variables were 250~265 amperes and 24.3 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 066734 perform welding by Flux Cored Arc Welding (FCAW), on Traveler Rail TR3001. Weld joint is identified as TR3001-TR1-001-013. ZPMC Quality Control (QC) Inspector identified as Sun Tian Liang was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-T-2233-ESAB. This QA Inspector noted welding variables were 245~265 amperes and 24.4 volts, which appears to be in compliance with the approved WPS.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

No significant conversations were reported on this date.

Comments

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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: 15000422372 , who represents the Office of Structural Materials for your project.

Inspected By:	Upadhye, Anand	Quality Assurance Inspector
Reviewed By:	Clifford, William	QA Reviewer
