DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-022324
Date Inspected: 23-Mar-2011

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 700
OSM Departure Time: 1900
Location: Shanghai, China

CWI Name: An Qing Xiang

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ 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 045143 perform welding by Flux Cored Arc Welding (FCAW), on Deck panel diaphragm to deck panel diaphragm weld of OBG Segment 13BW. Weld joint is identified as SEG3014E-008. ZPMC Quality Control (QC) Inspector identified as Zhang 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 230~240 amperes and 24 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 066261 perform welding by Shielded Metal Arc Welding (SMAW), on Deck panel diaphragm to deck panel I-rib stiffener weld of OBG Segment 13CW. Weld joint is identified as DP3146-001-243. ZPMC Quality Control (QC) Inspector identified as Zhang 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-2213-Tc-U4b-FCM-1. This QA Inspector noted welding variables were 135~155 amperes and 22.5 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 067588 perform welding by Shielded Metal Arc Welding (SMAW), on Deck panel diaphragm to deck panel I-rib stiffener weld of OBG Segment 13CW. Weld joint is identified as DP3146-001-247. ZPMC Quality Control (QC) Inspector identified as Zhang 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-2213-Tc-U4b-FCM-1. This QA Inspector noted welding variables were 140~155 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 066002 perform welding by Shielded Metal Arc Welding (SMAW), on Deck panel diaphragm to deck panel I-rib stiffener weld of OBG Segment 13CW. Weld joint is identified as DP3146-001-250. ZPMC Quality Control (QC) Inspector identified as Wang Xiang Pin was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-P-2213-Tc-U4b-FCM-1. This QA Inspector noted welding variables were 138~145 amperes and 24.7 volts, which appears to be in compliance with the approved WPS. See attached picture.

This QA Inspector observed ZPMC qualified welding personnel identified as 066443 perform welding by Shielded Metal Arc Welding (SMAW), on Deck panel diaphragm to deck panel I-rib stiffener weld of OBG Segment 13CW. Weld joint is identified as DP3146-001-253. ZPMC Quality Control (QC) Inspector identified as Wang Xiang Pin was present to monitor the welding process. The welding variables recorded by ZPMC QC appeared to be in general compliance with WPS-B-P-2213-Tc-U4b-FCM-1. This QA Inspector noted welding variables were 145~155 amperes and 25.2volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 201583 perform welding by Flux Cored Arc Welding (FCAW), on Deck panel diaphragm to deck panel diaphragm weld of OBG Segment 13BW. Weld joint is identified as SEG3014E-012. ZPMC Quality Control (QC) Inspector identified as Wang Xiang Pin 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 225~240 amperes and 26.1 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 067572 perform welding by Shielded Metal Arc Welding (SMAW), on Deck panel diaphragm to deck panel weld of sub assembly SA3232B of OBG Segment 13CW. Weld joint is identified as DP3153-001-043, 044. ZPMC Quality Control (QC) Inspector identified as Wang Xiang Pin 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 130~140 amperes and 22 volts, which appears to be in compliance with the approved WPS.

This QA Inspector observed ZPMC qualified welding personnel identified as 066179 perform welding by Shielded Metal Arc Welding (SMAW), on Deck panel diaphragm to deck panel weld of sub assembly SA3232B of OBG Segment 13CW. Weld joint is identified as DP3153-001-145, 146. ZPMC Quality Control (QC) Inspector identified as Wang Xiang Pin 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 140~155 amperes and 22.2 volts, which appears to be in compliance with the approved WPS.

WELDING INSPECTION REPORT

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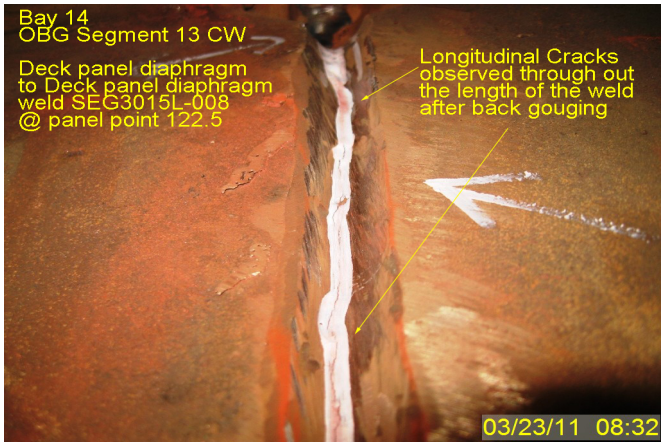
During random visual inspection of OBG Segment 13CW, this QA Inspector observed that the Deck panel diaphragm to Deck panel diaphragm weld SEG3015L-008 at panel point 122.5 had longitudinal cracks after back gouging. This QA Inspector informed the ZPMC CWI identified as An Qing Xiang about this issue. ZPMC CWI, An Qing Xiang informed this QA Inspector that the longitudinal cracks shall be removed and then the welding shall be done, in a manner compliant with the contract documents. See attached picture.

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

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