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: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-014210
Date Inspected: 17-Mar-2010

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: Xu Xian Ping

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 Sub-Assembly

Summary of Items Observed:

On this day Caltrans OSM Quality Assurance (QA) Inspector Stefan Holmes was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhen Hua Port Machinery Company (ZPMC) at Chang Xing Island in Shanghai, China.

Non-Destructive Testing pursuant to Non-Destructive Testing Inspection Notification Sheet (Document No. 005366):

Magnetic Particle Testing:

This QA inspector performed Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows:

TR1C-PP42-005

Non-Destructive Testing pursuant to Non-Destructive Testing Inspection Notification Sheet (Document No. 005363):

Magnetic Particle Testing:

This QA inspector performed Magnetic Particle Testing (MT) of approximately 15% of the area previously tested

and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows:

SEG067D-054~059, 062, 063, 068~073, 076, 077; SEG067E-047~052, 055, 056, 024~029, 032, 033, 001~006, 009, 010;
SEG068E-054~059, 062, 062, 082~087, 003, 004, 068~073, 076, 077; CA3001-015~022, 029~036, 043~050; CA6501-035~042, 049~056; CA3005-021~028, 007~014; CA3002-007~014; CA3003-007~014, 035~042;
CA3004-035~042, 021~028; SEG072D-047~052, 055, 056; SEG072E-082~087, 003, 004

Non-Destructive Testing pursuant to Non-Destructive Testing Inspection Notification Sheet (Document No. 005366):

Ultrasonic Testing:

This QA inspector performed Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows:

TR1C-PP42-005

Non-Destructive Testing pursuant to Non-Destructive Testing Inspection Notification Sheet (Document No. 005361):

Ultrasonic Testing:

This QA inspector performed Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows:

CA3001-017, 018, 031, 032, 045, 046
CA3002-009, 010
CA3003-009, 010, 037, 038
CA3004-023, 024, 037, 038
CA3005-009, 010, 023, 024
CA6501-037, 038, 051, 052
SEG067D-054, 059

This QA Inspector observed the following work in progress:

BAY 1:

Flux Cored Arc Welding (FCAW) of 20TR2-030; Weld(s) 013, 015 and 017. Welder(s) are identified as 216575. ZPMC Quality Control (QC) is identified as Tian Lei. Weld Procedure Specification (WPS) is identified as

WPS-B-T-2231-TC-U5-F. Welding appears to conform to the requirements of the WPS used.

Flux Cored Arc Welding (FCAW) of 20TR2-023; Weld(s) 009, 011 and 013. Welder(s) are identified as 215397. ZPMC Quality Control (QC) is identified as Tian Lei. Weld Procedure Specification (WPS) is identified as WPS-B-T-2231-TC-U5-F. Welding appears to conform to the requirements of the WPS used.

Flux Cored Arc Welding (FCAW) of 20TR1-021; Weld(s) 001 and 005. Welder(s) are identified as 219188. ZPMC Quality Control (QC) is identified as Tian Lei. Weld Procedure Specification (WPS) is identified as WPS-B-T-2231-TC-U5-F. Welding appears to conform to the requirements of the WPS used.

Flux Cored Arc Welding (FCAW) of 20TR1-042; Weld(s) 001 and 003. Welder(s) are identified as 059450. ZPMC Quality Control (QC) is identified as Tian Lei. Weld Procedure Specification (WPS) is identified as WPS-B-T-2231-TC-U5-F. Welding appears to conform to the requirements of the WPS used.

BAY 5:

Flux Cored Arc Welding (FCAW) pursuant to Critical Weld Repair #B-CWR1102 (Buttering for length) of 11TR3-024. Welder(s) are identified as 215689. ZPMC Quality Control (QC) is identified as Shen Jian Guo. Weld Procedure Specification (WPS) is identified as WPS-345-FCAW-2G(2F)-Repair-1. Welding appears to conform to the requirements of the WPS and CWR used.

Flux Cored Arc Welding (FCAW) pursuant to Critical Weld Repair #B-CWR1102 (Buttering for length) of 11TR1-016. Welder(s) are identified as 215689. ZPMC Quality Control (QC) is identified as Shen Jian Guo. Weld Procedure Specification (WPS) is identified as WPS-345-FCAW-2G(2F)-Repair-1. Welding appears to conform to the requirements of the WPS and CWR used.

Flux Cored Arc Welding (FCAW) pursuant to Critical Weld Repair #B-CWR1102 (Buttering for length) of 10TR2-011. Welder(s) are identified as 204342 and 222387. ZPMC Quality Control (QC) is identified as Shen Jian Guo. Weld Procedure Specification (WPS) is identified as WPS-345-FCAW-2G(2F)-Repair-1. Welding appears to conform to the requirements of the WPS and CWR used.

Flux Cored Arc Welding (FCAW) pursuant to Critical Weld Repair #B-CWR1102 (Buttering for length) of 10TR2-018. Welder(s) are identified as 204342 and 222387. ZPMC Quality Control (QC) is identified as Shen Jian Guo. Weld Procedure Specification (WPS) is identified as WPS-345-FCAW-2G(2F)-Repair-1. Welding appears to conform to the requirements of the WPS and CWR used.

Flux Cored Arc Welding (FCAW) pursuant to Critical Weld Repair #B-CWR1102 (Buttering for length) of 11TR2-009. Welder(s) are identified as 215248. ZPMC Quality Control (QC) is identified as Shen Jian Guo. Weld Procedure Specification (WPS) is identified as WPS-345-FCAW-2G(2F)-Repair-1. Welding appears to conform to the requirements of the WPS and CWR used.

Flux Cored Arc Welding (FCAW) pursuant to Critical Weld Repair #B-CWR1283 (Buttering for length) of 10TR2-012. Welder(s) are identified as 222387. ZPMC Quality Control (QC) is identified as Shen Jian Guo. Weld Procedure Specification (WPS) is identified as WPS-345-FCAW-2G(2F)-Repair-1. Welding appears to conform to

the requirements of the WPS and CWR used.

BAY 6:

Flux-Cored Arc Welding (FCAW) of USPL1-406; Weld(s) 001, 002. Welder(s) are identified as 053609. ZPMC Quality Control (QC) is identified as Shu Yang Hua. Weld Procedure Specification (WPS) is identified as WPS-B-T-2231-TC-U4b-F. Welding appears to conform to the requirements of the WPS used.

Flux-Cored Arc Welding (FCAW) of USPL1-390; Weld(s) 001, 002. Welder(s) are identified as 217185. ZPMC Quality Control (QC) is identified as Shu Yang Hua. Weld Procedure Specification (WPS) is identified as WPS-B-T-2231-TC-U4b-F. Welding appears to conform to the requirements of the WPS used.

Flux-Cored Arc Welding (FCAW) of USPL1-380; Weld(s) 001, 002. Welder(s) are identified as 217185. ZPMC Quality Control (QC) is identified as Shu Yang Hua. Weld Procedure Specification (WPS) is identified as WPS-B-T-2231-TC-U4b-F. Welding appears to conform to the requirements of the WPS used.

Flux-Cored Arc Welding (FCAW) of USPL1-399; Weld(s) 001, 002. Welder(s) are identified as 053609. ZPMC Quality Control (QC) is identified as Shu Yang Hua. Weld Procedure Specification (WPS) is identified as WPS-B-T-2231-TC-U4b-F. Welding appears to conform to the requirements of the WPS used.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

Summary of Conversations:

No relevant conversations.

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

Inspected By:	Holmes,Stefan	Quality Assurance Inspector
Reviewed By:	Hall,Steven	QA Reviewer