

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-022439**Date Inspected:** 30-Mar-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:** Mr. Geng Wei.**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:** Orthotropic Box Girder (OBG)**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Chang xing Island in Shanghai, China. QA observed and/or found the following:

BAY # 14

This QA Inspector performed randomly Visual Inspection and Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL-6027 (UT) report for this date. The member is identified as OBG Segment. The weld designations reviewed are as follows.

SEG3019X-008, 009

NDT Notification No-08671

This QA Inspector observed the following work in progress:

OBG 14EAST**SMAW Process:**

This QA Inspector observed ZPMC qualified welding personnel identified as 044772, 058102 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14East. Joint identified as SEG3019U-001. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument appeared to be in

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general compliance with WPS-B-P-2214-Tc-U4b-FCM-1. For more information see attached picture number 1.

FCAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 066763, 067877 Perform Flux Core Arc Welding (FCAW) on OBG Segment 14East. Joint identified as SEG3019AQ-023. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2231-ESAB.

This QA Inspector observed ZPMC qualified welding personnel identified as 067079 Perform Flux Core Arc Welding (FCAW) on OBG Segment 14East. Joint identified as SEG3019J-131, 136. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2233-ESAB.

SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 058087 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14East. Joint identified as SEG3019BB-001. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2214-Tc-U4b-FCM-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 067571 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14East. Joint identified as SEG3019BB-067. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2214-Tc-U4b-FCM-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 201087 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14East. Joint identified as SEG3019BB-023. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2214-Tc-U4b-FCM-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 043661 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14East. Joint identified as SEG3019BB-111. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2214-Tc-U4b-FCM-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 037932 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14East. Joint identified as SEG3019B-009. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2214-Tc-U4b-FCM-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 037723 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14East. Joint identified as SEG3019B-008. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2214-Tc-U4b-FCM-1.

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This QA Inspector observed ZPMC qualified welding personnel identified as 068764 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14East. Joint identified as SEG3019C-008. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2214-Tc-U4b-FCM-1.

Repair Welding, SMAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 066418 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14East. Joint identified as SEG3019U-003. ZPMC QC Identified as Zhu Yuan Yuan with Critical welding repair report CWR-B-CWR2822. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-2G (2F)-Repair-FCM-1.

Ultrasonic Testing:

This QA Inspector observed AB/F Ultrasonic Testing Inspector, performing UT on OBG Segment 13 East 13BE+13CE Deck panel to Deck panel joint. Joint identified as OBE13A-009. For more information see attached picture number 2.

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



Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

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: Gaikwad,Shailesh

Quality Assurance Inspector

Reviewed By: Patterson,Rodney

QA Reviewer