

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012820**Date Inspected:** 22-Mar-2010**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:** Wu Zhi Cheng**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:** Trial Assembly**Summary of Items Observed:**

On this day Caltrans OSM Quality Assurance (QA) Inspector Christopher D'souza 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. QA Inspector observed and/or found the following:

Trial Assembly

7BW-7CW Bottom Plate (BP)

This QA Inspector observed ZPMC welding personals identified as 067571 performing Shielded Metal Arc welding (SMAW) on OBW7B-007 (7BW to 7CW Transverse seam BP). ZPMC QC is identified as Feng Ya Jun. The welding variables recorded by QC appeared to comply with the WPS-B-P-2214--U2-FCM-1

7BW Corner Assembly – CW side

This QA Inspector observed ZPMC welding personals identified as 066361 performing Shielded Metal Arc welding (SMAW) on 7BW longitudinal splice CA035-006(DP-EP CW side). ZPMC QC is identified as Feng Ya Jun. The welding variables recorded by QC appeared to comply with the WPS-B-P-2214-Tc-U4B-FCM-1

7BE Corner Assembly – BK side

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

This QA Inspector observed ZPMC welding personals identified as 037840 performing Shielded Metal Arc welding (SMAW) on 7BE longitudinal splice CA036-004 (DP-EP BK side). ZPMC QC is identified as Sun Bai Zheng. The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-2G(2F)-FCM-REPAIR 1 and B-CWR1224-R1

7CW Corner Assembly – CB side

This QA Inspector observed ZPMC welding personals identified as 045196 performing Shielded Metal Arc welding (SMAW) on 7CW longitudinal splice SEG035*-044(DP-EP CB side). ZPMC QC is identified as Feng Ya Jun. The welding variables recorded by QC appeared to comply with the WPS-B-P-2214-Tc-U4B-FCM-1

NDT Observations

7AE – PP49 – Observed ABF performing Ultrasonic Testing (UT) on Longitudinal Diaphragm (LD) to Floor Beam (FB) welds (BK side and CB side)

7AE-7BE Transverse Seam – Observed ABF Inspectors Performing UT utilizing Detection of Transverse Planar Discontinuities with Significant Flaw Height Dimension Procedure, UT was being performed on Deck plate (DP), Side Plate (SP) and Edge Plate (EP)

7BE -7CE Side Plate CB side – Observed ZPMC performing Magnetic particle Testing (MT) on Base Metal Repair (BMR) areas

This QA Inspector performed Ultrasonic Testing (UT) on approximately 10% of OBG components previously accepted by ZPMC ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3 and Detection of Transverse Planar Discontinuities with Significant Flaw Height Dimension Procedure. The QA Inspector observed rejectable indications at the time of testing. Weld identification numbers were

OBE7B-003 (7AE-7BE bottom Plate)

This QA Inspector performed conventional UT (Ultrasonic Testing) in conjunction with ABF UT department for detection of planar transverse indication.

See Caltrans Ultrasonic Transverse Indication Evaluation sheet dated March 22nd, 2010 for further information on inspection.

Outside Yard

9DW

This QA Inspector performed Ultrasonic Testing (UT) on approximately 10% of OBG components previously accepted by ZPMC ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3 and Detection of Transverse Planar Discontinuities with Significant Flaw Height Dimension Procedure. The QA Inspector observed rejectable indications at the time of testing. Weld identification numbers were

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

SEG055*-047 (9DW DP-EP weld CB side)

This QA Inspector performed conventional UT (Ultrasonic Testing) in conjunction with ABF UT department for detection of planar transverse indication.

See Caltrans Ultrasonic Transverse Indication Evaluation sheet dated March 22nd, 2010 for further information on inspection.

This QA Inspector was involved in PAUT (Phased Array Ultrasonic Testing) training for detection of cracked tacks in Deck Panels as per the following procedure “UT 04-0120F4 PJP Rib Weld Phased Array Ultrasonic Testing for the Detection and Sizing of Suspected Planar Discontinuities (Cracks) in PJP Welds”

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:	Dsouza,Christopher	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
