

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013506**Date Inspected:** 01-May-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, Gu Rong Jian**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

7DW – 7EW side plate splice CB side

This QA Inspector observed ZPMC welding personals identified as 045246, 068097 and 037996 performing Shielded Metal Arc welding (SMAW) on OBW7C – 009, 010 ZPMC QC is identified as Wang Zhu. The welding variables recorded by QC appeared to comply with the WPS – B – P – 2214 – B – U2 – FCM - 1

This QA Inspector observed ZPMC welding personals identified as 067663, 037723 and 066038 performing Shielded Metal Arc welding (SMAW) on OBW7N – 007 ZPMC QC is identified as Wang Zhu. The welding variables recorded by QC appeared to comply with the WPS – B – P – 2214 – B – U2 – FCM - 1

8BW – pp65 – CB side

This QA Inspector observed ZPMC welding personals identified as 049861 performing Shielded Metal Arc welding (SMAW) on 8BW-pp65 box diaphragm to longitudinal diaphragm to repair error in weld size, weld

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number identified as SEG 45B-012. ZPMC QC is identified as Wang Xiang Pin. The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-1G (1F) - Repair 1 and B-WR11391

8BW – pp66 – CW side

This QA Inspector observed ZPMC welding personals identified as 066258 performing Shielded Metal Arc welding (SMAW) on CA049 – 073~078 ZPMC QC is identified as Wang Xiang Pin. The welding variables recorded by QC appeared to comply with the WPS – B – P – 4113 - 2

7DW – 7EW Side plate CW side Stiffener splice

This QA Inspector observed ZPMC welding personals identified as 067993 performing Shielded Metal Arc welding (SMAW) on SP101 – 001 – 1~14

This QA Inspector observed ZPMC welding personals identified as 066002, 067588 performing Shielded Metal Arc welding (SMAW) on SP128 – 001 – 1~12

This QA Inspector observed ZPMC welding personals identified as 205098 performing Shielded Metal Arc welding (SMAW) on SP155 – 001 – 1~12

ZPMC QC is identified as Zhang Hai Tao. The welding variables recorded by QC appeared to comply with the WPS – B – P 2213 – B – U2 – FCM – 1

This QA Inspector observed ZPMC personal performing repair activities on Deformation of FL2-2 at pp52 of Girder 7BE Due To Jacking. Repair Activities were proceeding as per RFI-ZPM-000814R00

NDT Observations

ABF Inspectors performing initial UT utilizing Detection of Transverse Planar Discontinuities with Significant Flaw Height Dimension Procedure, on the following welds

8AE – 8BE – Deck splice and Bottom splice

ZPMC Inspectors performing UT on 7CW – 7DW Deck splice

ABF Inspection Request number 05012010-1

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 no rejectable indications at the time of testing. Weld identification numbers were

CA072 – 004 (10AE DP to EP at E2)

CA090 – 004 (11DE DP to EP at E2)

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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 May 1st, 2010 for further information on inspection.

ZPMC NWIT

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. The QA Inspector observed no rejectable indications at the time of testing. Weld identification numbers were

SEG040A – 028

CA042 – 001

CA046 – 005

CA045 - 001

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
