

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017639**Date Inspected:** 16-Oct-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:** Xu Le Feng, Qiu Wen**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:** OBG/TOWER**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh 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 Changxing Island in Shanghai, China. QA observed and/or found the following:

BAY 10, TOWER FACADE (NWIT # 06983, GREEN TAG NO. 13523)

This QA inspector performed Magnetic Particle Testing (MT) of approximately 15% and random Visual Testing (VT) 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 Tower Components. The weld designations reviewed are as follows.

ND1-SFSA3-23-012

ND1-SFSA3-44-007, 008, 011

BAY 11, OBG BIKE PATH (NWIT # 06979)

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.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

BK004A5-017-112, 115, 118, 121, 122, 125, 128, 131

BAY 11, OBG BIKE PATH (NWIT # 06987)

This QA inspector performed random Visual Testing (VT) of an area previously tested and accepted by ZPMC Quality Control personnel. The members are identified as OBG Components. The weld designations reviewed are as follows.

BK004A-017 (GREEN TAG NO. 14345, STEP 10)

This Quality Assurance (QA) Inspector observed the following work in progress:

BAY 10, OBG BIKE PATH

SMAW welding of weld joint 058 & 059 located on BK004A4-028.

Welders are identified as 040521 & 040268. ZPMC QC is identified as mr. Li Jun.

The welding variables recorded by QC appeared to comply with WPS-B-P-2113.

SMAW welding of weld joint 044 located on BK004A1-026.

Welders are identified as 052493 & 500363. ZPMC QC is identified as Mr. Yu Zhi Lai.

The welding variables recorded by QC appeared to comply with WPS-B-P-2214-B-U2.

FCAW welding of weld joint 043 located on BK004A1-026.

Welders are identified as 040302 & 053869. ZPMC QC is identified as Mr. Yu Zhi Lai.

The welding variables recorded by QC appeared to comply with WPS-B-T-2232-Tc-U4c-F.

BAY 10, OBG BIKE PATH

ZPMC personnel heat straightening Orthotropic Box Girder (OBG) member identified as BK004A-031. Distortion appeared to be caused by welding of the material. ZPMC Quality Control (QC) inspector identified as Mr. Li Peng Fei was present to monitor the heat straightening process. The heat straightening appeared to comply with Heat Straightening Report (HSR) number HSR1(B)-9343.

During the Quality Assurance Visual Testing (VT) verification of welds located on Cover Plate for the Longitudinal Grillage plate of North Tower lift 5, this Quality Assurance (QA) Inspector discovered the following issues:

- The dimensions of Cover Plate do not match the approved shop drawings.
- As per shop drawing the required length of the Cover Plate is 151.4mm.
- Cover Plate weld # NSD1-TL5-3E/F-001/002, the length of the Cover Plate was measured as 138mm.
- Cover Plate weld # NSD1-TL5-3E/F-017/018, the length of the Cover Plate was measured as 118mm and 143mm.

- These welds are fillet welds, joining the Cover Plate to the Skin Plate and Longitudinal Grillage plate.
- The member is located in Bay 10.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

-Attached photographs provide additional location details.

The Notice of Witness Inspection Number (NWIT) is 06975. These areas have been previously tested and accepted by ZPMC Quality Control (QC) personnel. This issue has an incident report.

Unless otherwise noted, all work observed on this date appeared to generally comply with 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,Umesh

Quality Assurance Inspector

Reviewed By: Carreon,Albert

QA Reviewer