

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-008671**Date Inspected:** 21-Aug-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Wang Chuan Qing**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:** Tower and OBG Components**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector George Goulet was present during the times noted above for observations relative to the work being performed.

Trial Assembly Area

This QA Inspector, George Goulet, randomly observed the following in response to Bolting Inspection Notification Sheet No. 000115:

Segments 1BE, panel points 10~12.5, north and south, LD+DP connection plates

ZPMC workers performed final bolt tightening verification at the direction of ZPMC QC Inspector Hu Mei Gang (QC1) using ZPMC calibrated wrench #XO-584. No less than 10% of the ASTM A325 bolt sets at each connection were torque tested, with a minimum of one bolt set tested at each connection. QC1 provided this QA Inspector, George Goulet, with the following information regarding the bolt sets installed at this location. This QA Inspector, George Goulet, observed ZPMC's Bolt Test Log for SFOBB (RoCap list), listing the RoCap Set numbers, bolt set size, and the N.M test result for torque tightening purposes. The information presented by QC1 and listed below appeared to this QA Inspector, George Goulet, to match the RoCap list.

RC Set No. DHGM240020 – M24-2.5x75 – test result 600N.M

RC Set No. DHGM240028 – M24-2.5x90 – test result 540N.M

RC Set No. DHGM240022 – M24-2.5x100 – test result 527N.M

RC Set No. DHGM240024 – M24-2.5x120 – test result 553N.M

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

The torque of the above noted bolt sets was verified by torque testing with the a calibrated wrench with the wrench setting displayed as 600N.M at the option of QC1. Based on the information above this QA Inspector, George Goulet, concurred with QC1 for the issuance of green tag numbers.

Bay 10

This QA Inspector, George Goulet, also randomly observed the following work in progress in Bay 10:

FCAW welding of weld joint NSTL3-3B/K-82 located on top of north tower shaft, lift 3, skins B to C. Welders were identified as 052075 welding at the lower shaft rotator, and 0500041 welding at the upper shaft rotator. ZPMC QC was identified as CWI Wang Chuan Qing (QC2). Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Wang Hao, who was not a CWI. The welding variables recorded by QC2 and QC2's assistant appeared to comply with WPS-B-T-2231-C-U2-F.

SMAW welding of weld joint SSTL3-1G/K-70 located at diaphragm 99M on south tower, lift 3. Welder was identified as 040267. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-345-SMAW-3G(3F)-repair.

SMAW welding of weld joint SSTL3-1F/K-145 located at diaphragm 95.5M on south tower, lift 3. Welder was identified as 056200. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-345-SMAW-2G(2F)-repair.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

As noted above, and this QA Inspector, George Goulet, asked each QC monitoring the welding if all the welding variables observed by QC appeared to comply with the appropriate WPS, including the preheat requirements according to thickness of the thickest member being welded. Each QC showed this QA Inspector, George Goulet, that QC was carrying the proper temperature sticks to monitor the minimum and maximum preheat and interpass temperatures and replied that all QC observed did appear to comply.

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 Serge Sinevod, 134-8257-0045, who represents the Office of Structural Materials for your project.

Inspected By:	Goulet,George	Quality Assurance Inspector
----------------------	---------------	-----------------------------

Reviewed By:	Carreon,Albert	QA Reviewer
---------------------	----------------	-------------