

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-008261**Date Inspected:** 19-Jul-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:** Yu Dong Ping, Li Jia**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.

Bay 11

This QA Inspector, George Goulet, randomly observed the following work in progress in Bay 11:

SAW welding of weld joints WSD1-FCSA4-2A/C-28B, 29B, 30B located on west tower, lift 4, skin C. Welder was identified as 202756. ZPMC QC was identified as CWI Yu Dong Ping (QC1). The welding variables recorded by QC1 appeared to comply with WPS-B-T-2221-B-U3c-S-2.

OBG Trial Assembly Area

This QA Inspector, George Goulet, randomly observed the following in response to Bolting Inspection Notification Sheet No. 00073:

Section 4BE/FL3, panel point 26 - transverse bulkhead to bottom plate:

ZPMC workers performed final bolt tightening verification at the direction of ZPMC QC Hu Mei Gang (QC1) using ZPMC calibrated wrench identified by scribing on the handle as XO2-627. No less than 10% of the ASTM A325 bolt sets, per lot, at each connection were torque tested, with a minimum of one bolt set tested at each side of the 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

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purposes. The information presented by QC1 and listed below appeared to this QA Inspector, George Goulet, to match the RoCap list.

RC Set No. DHGM240014 – M24-3x60 – RoCap test result 567N.M

RC Set No. DHGM240008 – M24-3x65 – RoCap test result 547N.M

The torque of the above noted bolt sets was verified by torque testing with the above noted calibrated wrench with the wrench setting displayed as 570N.M by choice of QC1. Also present was ZPMC CWI Li Jia. This QA Inspector, George Goulet, observed each bolt set tested required rotation before the wrench indicated the bolt set had reached the required torque. QC1 chose to perform final bolt tightening verification on every bolt set on the connection as This QA Inspector, George Goulet, randomly observed this QA Inspector, George Goulet, randomly observed the operation.

This QA Inspector, George Goulet, randomly observed the following work in progress in the trial assembly area:

1AW/1BW, panel points 10 and 12 – installation of access cover plates on lower chevrons.

2BW, panel point 18 – SMAW welding of deck plate diaphragm to upper floor beam joint. Welder was identified as 044779. ZPMC QC was identified as CWI Li Jia (QC2) Zhang Hai Tao The welding variables recorded by QC2 and QC2's assistant appeared to comply with WPS-345-SMAW-2G(2F)-repair which was attached to repair order B-WR5975.

4BE/FL3, longitudinal connection – ZPMC workers removing bolt sets.

3AW~3BW joint - ZPMC workers tightening with torque wench U-rib bolt sets.

1AAW/1AW joint – fitting up the mating surfaces usine hydraulic jacks and turnbuckles.

4BW/FL3, panel point 28 – plug welding of extreme outer bolt hole in the top four transverse ribs.

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, was informed by QC1 that the above noted bolt set numbers were recorded by ZPMC during installation and ZPMC would perform the torque verification tests of the above noted bolt sets to the highest torque test result displayed in the RoCap list for both bolt sets listed of the same diameter.

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 monitoring the welding 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.

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

Inspected By:	Goulet,George	Quality Assurance Inspector
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Reviewed By:	Carreon,Albert	QA Reviewer
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