

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-010212**Date Inspected:** 03-Nov-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:** See below**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 Inspector George Goulet was present during the times noted above for observations relative to the work being performed.

OBG Trial Assembly Area

This QA Inspector, George Goulet, randomly observed the following in response to Bolting Inspection Notification Sheet No. 000186:

Segment 5AE, panel points 29~30, south (bike path side), SP+SP connection plates

ZPMC workers performed final bolt tightening verification at the direction of ZPMC QC Inspector Shen Jian Bo (QCB) using ZPMC calibrated wrench #XO2-625. 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. QCB 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 NM test result for torque tightening purposes. The information presented by QCB and listed below appeared to this QA Inspector, George Goulet, to match the RoCap list.

RC Set No. DHGM220004 – M22-2.5x70 – test result 453NM

RC Set No. DHGM220005 – M22-2.5x75 – test result 473NM

The torque of the above noted bolt sets was verified by torque testing with a calibrated wrench with the wrench

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setting displayed as 475NM. Based on the information above this QA Inspector, George Goulet, concurred with QCB for the issuance of green tag numbers.

Bay 11

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

ZPMC personnel were using an oxy-fuel torch to cut a 50mm wide x 30mm deep U-shaped slot in the bottom of all 9 exterior, lift 1, skin C, stiffeners at approximately 90mm to 140mm from skin C. ABF Representative Zhang Qin Jian informed this QA Inspector that this slot would be used to help erect the tower section and would later be trimmed completely off per contract documents. No CWI or other QC personnel were in the area.

This QA Inspector observed ZPMC personnel performing match drilling of 27mm holes into west tower, lift 1, skin plate E at the 33M double diaphragm and into skin A at the 33M, 28M, and 23M diaphragms through previously partially drilled holes with no template at what appeared to be the facade attachment bolt holes. No CWI or other QC personnel were in the area.

Bay 10

This QA Inspector randomly observed the following work in progress in Bay 10:

SMAW repair welding of weld joint ND1-A5002-31-1A located on PCMK north tower, strut. Welder was identified as 057258. ZPMC QC was identified as CWI Wan Wen Zhong (QC1). The welding variables recorded by QC1 appeared to comply with WPS-485-SMAW-2G(2F)-FCM-repair-1 as noted in ZPMC repair order T-CWR-418. Also present at this location and appearing to be monitoring the welding operation was ABF Representative Xie Yan.

FCAW welding of weld joint NSTL4-3B/L-2A located on PCMK north tower, lift 4, skin D to skin E, at the lower rotation fender position. Welder was identified as 052075. ZPMC QC was identified as Li Ming (QC2). The welding variables recorded by QC1 appeared to comply with WPS-B-T-2231-C-U2-F.

FCAW welding of weld joint NSTL4-3B/L-3A located on PCMK north tower, lift 4, skin A to skin E, at the lower rotation fender position. Welder was identified as 040343. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-2232-C-U2-F.

SMAW welding of a temporary attachment to the outside of north tower, lift 1 at lift 2 joint, skin C near skin D. Welder was identified as 040581. ZPMC QC's were identified as QC1 and QC2. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC Li Peng Fei, who was not a CWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-2314-TC-P5.

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

Summary of Conversations:

As noted above.

Comments

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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:	Dawson,Paul	QA Reviewer
