

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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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-012625**Date Inspected:** 26-Feb-2010**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 (QA Inspector) George Goulet was present during the times noted above for observations relative to the work being performed.

Bay 10

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

SMAW welding of weld joint SSD1-TL5-1B-F-52A located inside PCMK south tower, lift 5, skins D/E corner. Welder was identified as 050289. ZPMC QC was identified as Gong Liang Zhu (QC1). The welding variables recorded by QC1 appeared to comply with WPS-B-T-3211-TC-U4b-1. Also present at this location and appearing to be monitoring the welding related operations was ABF Representative Yang Ye Heng.

SMAW repair welding of weld joint NSTL4-3B/L-5A located inside PCMK north tower, lift 4, skins B/C corner at Y=17000. Welder was identified as 052930. ZPMC QC was identified as Deng Zhi Bing (QC2). The welding variables recorded by QC2 appeared to comply with WPS-345-SMAW-2G(2F)-repair listed on ZPMC repair order T-WR591. Also present at this location and appearing to be monitoring the welding related operations was ABF Representative Yang Ye Heng.

SMAW repair welding of weld joint NSTL4-3B/L-5A located inside PCMK north tower, lift 4, skins B/C corner at Y=8760. Welder was identified as 500363. ZPMC QC was identified as Deng Zhi Bing (QC2). The welding variables recorded by QC2 appeared to comply with WPS-345-SMAW-2G(2F)-repair listed on ZPMC repair order T-WR591. Also present at this location and appearing to be monitoring the welding related operations was ABF

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# WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

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Representative Yang Ye Heng.

Bay 11

No welding related work was observed being performed in Bay 11.

Heavy Dock

The tower access elevator was not manned after 2100 hours and it appeared that no work was being performed at the lift 1/ lift 2 joints of either of the towers.

Trial Assembly Area

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

ZPMC workers appearing to be performing final tightening of bolt sets at the OBG section 5AW/5BW deck panel U-rib joint.

ZPMC workers appearing to be performing what appeared to be final bolt tightening of ASTM A325 bolt sets using a wrench more than one meter long on the 5BW/5CW transverse seam at the deck plate U-rib stiffener lap plates. The workers appeared to be performing final tightening of the nuts to the turn-of-nut specification of 180° to 210°. However, this QA Inspector, George Goulet, observed that the workers were tightening bolts not scribed with in-line turn-of-nut markings from a snug tight condition and another ZPMC worker was following and applying markings at exactly 180° rotation. When this QA Inspector began taking photographs of the procedure being performed she exited OBG section 5W. No ZPMC QC or ABF representative was observed at the location at any time this QA Inspector was present, and although ZPMC QA Inspector Lei Tao (ZPMC QA) had been seen in the area before this QA Inspector was able to observe the above noted action, ZPMC QA was never observed on the scaffold where the work was being performed. This QA Inspector generated an incident report concerning the above noted issue. See the photos below for more information. Additional photos are available.

This QA Inspector attempted to inform ZPMC QA, but the ZPMC QA office was closed at 2300 hours. This QA Inspector notified ZPMC QA Lei Tao at 1925 hours on 2/27/2010.

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

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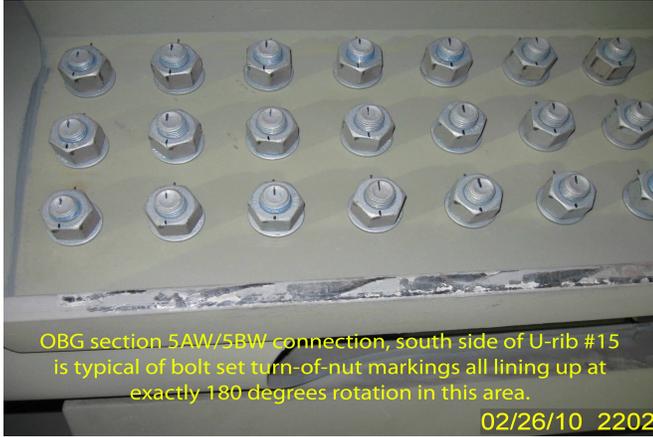
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# WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

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## Summary of Conversations:

As noted above.

## 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 Skyler Guest, 150-0042-2360, who represents the Office of Structural Materials for your project.

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**Inspected By:** Goulet, George

Quality Assurance Inspector

**Reviewed By:** Dawson, Paul

QA Reviewer