

**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-009257**Date Inspected:** 27-Sep-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 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.

Bay 11

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

FCAW welding of weld joints ED1-A435B/C-7, 9 located on PCMK east tower, skirt plate beam. Welder was identified as 042218. ZPMC QC was identified as CWI Guo Peng (QC1). Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Jun, who was not a CWI. The welding variables recorded by QC1 and QC1's assistant appeared to comply with WPS-B-T-2132 and WPS-B-T-2133. Also at this location and appearing to be monitoring the welding and recording data was ABF Representative Xie Yan.

FCAW repair welding of weld joint WSTL3-4K/K-44 located on PCMK west tower, lift 3, skins B/C diagonal plate butt weld, inside 109M diaphragm. Welder was identified as 040713. ZPMC QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-B-T-2332-B-U2a-F.

FCAW repair welding of weld joint WSTL3-4K/K-78 located on PCMK west tower, lift 3, skins B/C to diagonal plate between 105.5M and 109M diaphragms. Welder was identified as 070140. ZPMC QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-B-T-2331-TC-P4-F.

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FCAW repair welding of weld joint WSTL3-4K/K-77 located on PCMK west tower, lift 3, skins B/C to diagonal plate between 105.5M and 109M diaphragms. Welder was identified as 070254. ZPMC QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-B-T-2332-TC-P4-F.

FCAW repair welding of weld joint WSTL3-4I/K-159 located on PCMK west tower, lift 3, at 109M diaphragm. Welder was identified as 058972. ZPMC QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-B-T-4333-TC-P5-F.

SMAW welding of weld joints WD1-A597B/C-1, 2, 4, 5 located on PCMK west tower, skirt beam. Welder was identified as 203793. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Cao Cheng, who was not a CWI. The welding variables recorded by QC1 and QC1's assistant appeared to comply with WPS-B-P-2112.

Bay 10

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

FCAW welding of the wrapped ends of weld joints NSD1-FDSA4-3C/D-1, 2, 15, 16, located on PCMK north tower, lift 4, skin D, stiffener connection plates. Welder was identified as 053116. ZPMC QC was identified as CWI Li Ming (QC2). Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Gao Zhi Chun, who was not CWI's. The welding variables recorded by QC1 and QC1's assistant appeared to comply with WPS-B-T-4332-T-P4-F.

SMAW welding of weld joint SSTL4-1B/L-4A located on PCMK south tower, lift 4, skins A and B at 136M. Welder was identified as 057220. ZPMC QC was identified as QC2. The welding variables recorded by QC1 appeared to comply with WPS-B-P-2214B-U2.

SMAW welding of weld joint NSTL3-3B/K-83A located on north tower, lift 3, skins A and B. Welder was identified as 050289. ZPMC QC was identified as 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-345-SMAW-2G(2F)-repair which was listed on ZPMC repair order T-CWR274 presented to this QA inspector by ZPMC QC Inspector Wang Hao.

FCAW welding of weld joint SSTL3-1B/K-83A located on south tower, lift 3. Welder was identified as 050041. ZPMC QC was identified as CWI 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.

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

### **Summary of Conversations:**

No relevant conversations except 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.

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<b>Inspected By:</b>	Goulet, George	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon, Albert	QA Reviewer

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