

**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-007183**Date Inspected:** 19-May-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1845**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 645**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Ming, Wan Wen Zhong**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 (QA) Inspector George Goulet was present during the times noted above for observations relative to the work being performed.

**Bay 5**

This QA Inspector, George Goulet, proceeded to the Bay 5 in response to a ZPMC notification of witness inspection #3142 for MT inspection. The weld joints were listed as nsd1-fbsa4-1a/c-31, 35, 8a/b on Section lift 4 north skin b. This QA Inspector, George Goulet, was unable to find welds 31, 35 and determined that the welds intended to be MT inspected were as follows:

This QA Inspector, George Goulet, performed random VT and then MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector, George Goulet, generated an MT report for this date. The member is identified as NSD1-FBSA4-1A/C. The weld designations reviewed are as follows: 31A, 35A, 8A.

**Bay 10**

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

SAW welding of weld joints SSD1-FBSA4-1A/C-46B, 41, 34B located on PCMK south tower, lift 4, skin B. Welder was identified as 050295. ZPMC QC was identified as CWI Li Ming (QC1). Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Xiao Jun Peng, who was not a CWI. The welding variables recorded by QC1 and his assistant appeared to comply with

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## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

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WPS-B-T-2221-B-U3c-S-2 for the CJP welds and WPS-B-T-2221-B-P3-S-2 for the PJP weld.

SAW welding of weld joints SSD1-FBSA4-1A/C-33, 30B, 27, 15B(2) located on PCMK south tower, lift 4, skin B. Welder was identified as 040252. 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 Xiao Jun Peng, who was not a CWI. The welding variables recorded by QC1 and his assistant appeared to comply with WPS-B-T-2221-B-U3c-S-2 for the CJP welds and WPS-B-T-2221-B-P3-S-2 for the PJP welds.

SAW welding of weld joints SSD1-FBSA4-1A/C-46A, 14, 34A, 32, 15A(2), 26, 30A located on PCMK south tower, lift 4, skin B. Welder was identified as 050295. 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 Xiao Jun Peng, who was not a CWI. The welding variables recorded by QC1 and his assistant appeared to comply with WPS-B-T-2221-B-U3c-S-2 for the CJP welds and WPS-B-T-2221-B-P3-S-2 for the PJP welds.

FCAW welding of weld joints NSD1-FDSA3-1B/C-22, 23 located on PCMK north tower, lift 3, skin D, using the southeast gantry. Welders were identified respectively as 069043, 068494. ZPMC QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-B-T-2332-Tc-P5-F.

FCAW welding of weld joints NSD1-FDSA3-1B/C-29, 30, 43, 44 located on PCMK north tower, lift 3, skin D, using the southwest gantry. Welders were identified respectively as 070046, 066484, 068206, 067499. ZPMC QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-B-T-2332-Tc-P5-F.

FCAW welding of weld joint NSD1-A166F/J-182 located on PCMK north tower shaft interior, lift 1. Welder was identified as 057180. ZPMC QC was identified as CWI Wan Wen Zhong (QC2). Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Zong Yi, who was not a CWI. The welding variables recorded by QC2 and his assistant appeared to comply with WPS-B-T-4333-Tc-P4-F.

FCAW welding of weld joint NSD1-A166E/J-188 located on PCMK north tower shaft interior, lift 1. Welder was identified as 055116. 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 Zong Yi, who was not a CWI. The welding variables recorded by QC2 and his assistant appeared to comply with WPS-B-T-4333-Tc-P4-F.

FCAW welding of weld joint NSD1-A166E/J-53 located on PCMK north tower shaft interior, lift 1. Welder was identified as 040338. 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 Zong Yi, who was not a CWI. The welding variables recorded by QC2 and his assistant appeared to comply with WPS-B-T-4333-Tc-P4-F.

FCAW welding of weld joint NSD1-A166E/J-63 located on PCMK north tower shaft interior, lift 1. Welder was identified as 052075. 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 Zong Yi, who was not a CWI. The welding variables recorded by QC2 and his assistant appeared to comply with WPS-B-T-4333-Tc-P4-F.

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## WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

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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 if all the welding variables observed by him 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 he was carrying the proper temperature sticks to monitor the minimum and maximum preheat and interpass temperatures and replied that all he 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.

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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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