

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-006743**Date Inspected:** 16-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:	Su Zheng Rong, Tu Jun, Liu 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 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 5

This QA Inspector, George Goulet, proceeded to Bay 5 in response to a ZPMC notification of witness inspection #3103 for MT inspection as follows:

This QA Inspector, George Goulet, performed random VT of the area previously tested and accepted by ZPMC Quality Control personnel. The five members were identified as CTS1E(A) and CTS1D(B, C, G, E). Each member consisted of three parts. The one part inspected of each member was made up of 76mm x 76mm x 9.5mm angle. This QA Inspector, George Goulet, observed several welds that did not appear complete and one angle to angle fit-up with a 2mm gap between angles. This QA Inspector, George Goulet, informed the ZPMC shop foreman, ZPMC QC Xu Hongmin (QC), and ABF Representative Deng Wen Jun (ABF) of the above noted issues. This QA Inspector, George Goulet, asked both QC and ABF for a Caltrans approved drawing of the weld details. Both QC and ABF told this QA Inspector, George Goulet, that the plans, including the weld details were inaccessible until tomorrow morning. QC suggested that this QA Inspector, George Goulet, contact ZPMC QA Department during the next day shift. This QA Inspector, George Goulet, rejected the five members based on the information noted above and informed the Caltrans QA Department of QC's suggestion.

Bay 10

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

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SAW welding of weld joints NSD1-FBSA4-1A/C-35B, 31B located on PCMK north tower, lift 4, skin B. Welders were identified respectively as 207746, 207745. ZPMC QC was identified as CWI Su Zheng Rong (QC1). Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Lu Wei Chao, 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.

SMAW welding of weld joint NSD1-FASA4-1A/E-7A located on PCMK north tower, lift 4, skin A. Welders were identified as 040269, 040452. ZPMC QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-B-T-2314-Tc-P5.

FCAW welding of weld joints NSD1-FBSA3-3B/C-31A, 25A located on PCMK north tower, lift 3, skin B. Welders were identified respectively as 040261, 040457. 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-A116E/J-73B located on PCMK north tower shaft, lift 1. Welders were identified as 040338, 052075. ZPMC QC was identified as CWI Tu Jun (QC2). The welding variables recorded by QC2 appeared to comply with WPS-B-T-2232-Tc-U4b-F. Also at this location and appearing to be monitoring the welding was ABF Representative Li Nan.

SMAW tack welding of weld joint SSTL3B/K-85B located on PCMK south tower, lift 3, skin D to skin E. Welders were identified as 040256, 040453. ZPMC QC was identified as CWI Liu Zhong An (QC3). Assisting QC3 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Yuan Hui Gong, who was not a CWI. The welding variables recorded by QC3 and his assistant appeared to comply with WPS-B-P-2212-Tc-U4b.

Bay 11

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

FCAW welding of weld joints WSD1-FESA3-2B/D-4B, 9B, 29B located on PCMK west tower, lift 3, skin E mounted on an A-frame. Welders were identified respectively as 049220, 059525, 058792. ZPMC QC was identified as CWI Xu Le Feng (QC4). Assisting QC4 at this location and appearing to be monitoring the welding and recording data was ZPMC Inspector Shao Hui Lang. The welding variables recorded by QC4 and his assistant appeared to comply with WPS-B-T-2231-Tc-U5-F.

SAW welding of weld joint ESD1-FCSA4-2A/C-44A located on PCMK east tower, lift 4, skin C. Welder was identified as 044558. ZPMC QC was identified as QC4. Assisting QC4 at this location and appearing to be monitoring the welding and recording data was ZPMC Inspector Li Bin. The welding variables recorded by QC4 and his assistant appeared to comply with WPS-B-T-2221-B-U3c-S-2.

FCAW welding of weld joint WSD1-A423B/H-4B located on PCMK west tower, lift 1, skin A to skin B. Welder was identified as 067036. ZPMC QC was identified as CWI You Qi Guo (QC5). The welding variables recorded by QC5 appeared to comply with WPS-B-T-2231-C-U2a-F. Also at this location and appearing to be monitoring the welding was ABF Representative Jiang Zi Wen.

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SAW welding of weld joint WSD1-A423B/C-5B located on PCMK west tower, lift 1, skin A to skin B. Welders were identified as 056975, 047304. ZPMC QC was identified as QC5. The welding variables recorded by QC5 appeared to comply with WPS-B-T-2221-B-U3c-S-2.

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, except in Bay 7 where ZPMC QC Inspector Wang Tai showed this QA Inspector, George Goulet, that he was using a laser infrared sensor.

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
Reviewed By:	Carreon,Albert	QA Reviewer
