

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-007202**Date Inspected:** 08-Jun-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:	Shi Weisong, Jin Dong Liang, Xu			CWI Present:	Peng	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.

Trial Assembly Area

This QA Inspector, George Goulet, randomly observed the following in segment 4BE:

ZPMC workers performed what appeared to be final tightening ASTM A325 bolt sets on south side lower chevron inner beams at panel points 24 through 28 north using a hydraulic bolt tightening wrench as follows: Hydra Electric Pump, Model MP582-11, Serial number PW090331002 and Hydra HY.Wrench, Model 2XLCT-36mm, Serial number Y090520001. The workers appeared to be tightening the nuts to the turn-of-nut specification of 180° to 210° and in a pattern from top to bottom.

This QA Inspector, George Goulet, randomly observed the following in segment 5BW:

ZPMC workers were match drilling through previously drilled floor beam holes into cross beam bottom plate.

This QA Inspector, George Goulet, randomly observed the following in segment 5AW:

ZPMC workers were flame heat treating the south side bottom of the north longitudinal diaphragm at the weld to the bottom plate of 5AW from the connection area to 5BW, westward approximately 1.5 meters.

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-FCSA4-1A/C-47, 86A, 72, 56A located on PCMK north tower, lift 4, skin C. Welder was identified as 209106. ZPMC QC was identified as CWI Shi Weisong (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 QC1's assistant appeared to comply with WPS-B-T-2221-B-U3c-S-2 for the CJP welds and WPS-B-T-2321-B-P3-S-2 for the PJP welds.

SAW welding of weld joints SSD1-FDSA4-1A/C-10A(1), 7, 5A, 3 located on PCMK south tower, lift 4, skin D. Welder was identified as 207745. 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 Lu Wei Chao, who was not a CWI. The welding variables recorded by QC1 and QC1's assistant appeared to comply with WPS-B-T-2221-B-U3c-S-2 for the CJP welds and WPS-B-T-2321-B-P3-S-2 for the PJP welds.

SMAW tack welding of weld joints SSD1-FASA4-1E/E-121, 122 located on PCMK south tower, lift 4, skin E. Welders were identified respectively as 049225, 206568. ZPMC QC was identified as CWI Jin Dong Liang(QC2). Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Zong Li, who was not a CWI. The welding variables recorded by QC2 and QC2's assistant appeared to comply with WPS-B-P-2311-B-P3.

Bay 11

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

SAW welding of weld joint WSD1-FESA4-4A/F-13A located on PCMK west tower, lift 4, skin E. Welder was identified as 062611. ZPMC QC was identified as CWI Xu Le Feng (QC3). Assisting QC3 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Fu Wei Min, who was not a CWI. The welding variables recorded by QC3 and QC3's assistant appeared to comply with WPS-B-T-2221-B-U3c-S-2.

SAW welding of weld joint ESD1-FESA4-2A/F-5A(1) located on PCMK east tower, lift 4, skin E. Welder was identified as 067888. ZPMC QC was identified as CWI Guo Peng (QC4). Assisting QC4 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Yuan Wen Jie, who was not a CWI. The welding variables recorded by QC4 and QC4's assistant appeared to comply with WPS-B-T-2221-B-U3c-S-2. Also at this location and appearing to be monitoring the welding operations were ABF Representatives Zhai Xian He and Luo Lai Quan.

SAW welding of weld joint ESD1-FESA4-2A/F-16 located on PCMK east tower, lift 4, skin E. Welder was identified as 057994. ZPMC QC was identified as QC4. Assisting QC4 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Yuan Wen Jie, who was not a CWI. The welding variables recorded by QC4 and QC4's assistant appeared to comply with WPS-B-T-2321-B-P3-S-2. Also at this location and appearing to be monitoring the welding operations were ABF Representatives Zhai Xian He and Luo Lai Quan.

SAW welding of weld joints ESD1-FESA4-2A/F-3A, 24 located on PCMK east tower, lift 4, skin E. Welder was identified as 067993. ZPMC QC was identified as QC4. Assisting QC4 at this location and appearing to be

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monitoring the welding and recording data was ZPMC QC Inspector Yuan Wen Jie, who was not a CWI. The welding variables recorded by QC4 and QC4's assistant appeared to comply with WPS-B-T-2221-B-U3c-S-2 for the CJP weld and WPS-B-T-2321-B-P3-S-2 for the PJP weld. Also at this location and appearing to be monitoring the welding operations were ABF Representatives Zhai Xian He and Luo Lai Quan.

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 QC 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 QC was carrying the proper temperature sticks to monitor the minimum and maximum preheat and interpass temperatures and replied that all QC 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.

Inspected By:	Goulet,George	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
