

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-008498**Date Inspected:** 10-Aug-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1800**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:	Li Lin, Wang Chuan Qing, Tu Jun			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 11

This QA Inspector, George Goulet, proceeded to the Bay 11 in response to a ZPMC notification of witness inspection #3909 for VT inspection of the following:

This QA Inspector, George Goulet, performed random VT of the area previously tested and accepted by ZPMC Quality Control personnel. The member is identified as west tower, lift 2, fit lug on skin A, WSD1-TL6. The weld designations reviewed are as follows: C/L-116, 114, 228, 110; F/L 5, 4; E/L- 118, 115; H/L-205, 102, 5, 4.

This QA Inspector, George Goulet, performed random VT of the area previously tested and accepted by ZPMC Quality Control personnel. The member is identified as west tower, lift 2, backfill plate to skins A and E, WSD1-TL6. The weld designations reviewed are as follows: C/L-113, 112, 111, 3, 2, 1; F/L 1, 2, 3; E/L- 113, 116, 114; H/L-99, 101, 100, 2, 3, 1. This QA Inspector, George Goulet, observed steel backing bars remaining attached to base metal by welding at one or both ends only, and not continuous for the length of the backing at the following four weld designations: WSD1-TL6C/L-113, WSD1-TL6F/L-1, WSD1-TL6E/L-113, WSD1-TL6H/L-99. AWS D1.5 (2002) Section 3.13.3.2 states "Where the steel backing of longitudinal welds is externally attached to the base metal by welding, such welding shall be continuous for the length of the backing." This QA Inspector, George Goulet, notified ZPMC QC Inspectors Ma Qian Li and Shao Hai Lang as well as ABF Representative Zhao Xian He that this QA Inspector, George Goulet, would generate an incident report concerning

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this issue.

Bay 11

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

SMAW welding of weld joint WSD1-FESA4-4F/F-31A located on west tower, lift 4, skin E. Welder was identified as 041271. ZPMC QC was identified as CWI Li Lin (QC1). The welding variables recorded by QC1 appeared to comply with WPS-B-T-3211-Tc-U5b-1.

FCAW buttering on the following strut plates: east P173-C1, C2; P172-D4, D5; P169-E5, E6. Welder was identified as 067184. ZPMC QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-345-FCAW-2G(2F)-repair as displayed on repair order T-WR1875 presented to this QA Inspector, George Goulet by QC1.

FCAW buttering on the following strut plates: east P144-E3, C2; P160-B4, B5. Welder was identified as 070212. ZPMC QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-345-FCAW-2G(2F)-repair as displayed on repair order T-WR1875 presented to this QA Inspector, George Goulet by QC1.

FCAW buttering on the following strut plates: east P1144-C3, C4. Welder was identified as 068923. ZPMC QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-345-FCAW-2G(2F)-repair as displayed on repair order T-WR1875 presented to this QA Inspector, George Goulet by QC1.

Bay 10

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

SAW welding of weld joint NSD1-A803A/B-15A located on PCMK north tower. Welder was identified as 040413. ZPMC QC was identified as CWI Wang Chuan Qing (QC2). Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Yu Zhi Lai, who was not a CWI. The welding variables recorded by QC2 and QC2'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 and recording data was ABF Representative Xie Yan.

SAW welding of weld joint NSTL3-2B/K-83B located on PCMK north tower, lift 3. Welder was identified as 051413. ZPMC QC was identified as CWI QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-2221-B-L2a-S.

FCAW welding, using the northwest gantry, of weld joints NSD1-FDSA3-1C/C-2, 3 located on PCMK north tower, lift 3, skin D. Welders were identified respectively as 052075, 056041. ZPMC QC was identified as CWI Tu Jun (QC3). Assisting QC3 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Li Peng Fei, who was not a CWI. The welding variables recorded by QC3 and QC3's assistant appeared to comply with WPS-B-T-2332-Tc-P5-F.

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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 monitoring the welding 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 monitoring the welding 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
