

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-012967**Date Inspected:** 23-Mar-2010**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 (QA 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:

SMAW layered repair welding of tower skirt plate and beam assembly end marked as ED1-A435A/C. Welder was identified as 040655. QC was identified as ZPMC CWI An Qing Xiang (QC1). Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Li Bin, who was not a CWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-345-SMAW-2G(2F) and WPS-345-SMAW-3G(3F) as listed on T-WR3111 presented to this QA Inspector by ZPMC QC Li Bin. Also present at this location and appearing to be monitoring the welding related operations was ABF Representative Zhang Hui Long.

Bay 10

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

FCAW welding of weld joints NSTL4-3B/L-24, 20 located inside PCMK north tower, lift 4, skins C/D to corner angle plate at 135M elevation. Welder was identified as 040434. QC was identified as ZPMC CWI Du Zhi Qun (QC2). The welding variables recorded by QC2 appeared to comply with WPS-B-T-2331-TC-P4-F-2 and WPS-B-T-2332-TC-P4-F-2, respectively. Also present at this location and appearing to be monitoring the welding

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related operations were ABF Representatives Li Lin and Hu Gui Hua.

FCAW welding of weld joints NSTL4-3B/L-24, 20 located inside PCMK north tower, lift 4, skins C/D to corner angle plate at 128M elevation. Welder was identified as 040533. QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-2331-TC-P4-F-2 and WPS-B-T-2332-TC-P4-F-2, respectively. Also present at this location and appearing to be monitoring the welding related operations were ABF Representatives Li Lin and Hu Gui Hua.

FCAW welding of weld joints NSTL4-3B/L-49, 53 located inside PCMK north tower, lift 4, skins B/C to corner angle plate at 128M elevation. Welder was identified as 053869. QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-2331-TC-P4-F-2 and WPS-B-T-2332-TC-P4-F-2, respectively. Also present at this location and appearing to be monitoring the welding related operations were ABF Representatives Li Lin and Hu Gui Hua.

FCAW welding of weld joints NSTL4-3B/L-49, 53 located inside PCMK north tower, lift 4, skins B/C to corner angle plate at 135M elevation. Welder was identified as 067993. QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-2331-TC-P4-F-2 and WPS-B-T-2332-TC-P4-F-2, respectively. Also present at this location and appearing to be monitoring the welding related operations were ABF Representatives Li Lin and Hu Gui Hua.

Bay 11

Upon returning, this QA Inspector randomly observed the following additional work in progress in Bay 11:

FCAW welding of weld joints WSTL4-2B/L-22, 16 located inside PCMK west tower, lift 4, skins B/C to corner angle plate at 127M elevation. Welder was identified as 066481. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Shao Hai Long, who was not a CWI. The welding variables recorded by QC2's assistant appeared to comply with WPS-B-T-2331-TC-P4-F-2 and WPS-B-T-2332-TC-P4-F-2, respectively.

FCAW welding of weld joints WSTL4-2B/L-22, 16 located inside PCMK west tower, lift 4, skins B/C to corner angle plate at 123M elevation. Welder was identified as 070397. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Shao Hai Long, who was not a CWI. The welding variables recorded by QC2's assistant appeared to comply with WPS-B-T-2331-TC-P4-F-2 and WPS-B-T-2332-TC-P4-F-2, respectively.

FCAW welding of weld joints WSTL4-2B/L-22, 16 located inside PCMK west tower, lift 4, skins B/C to corner angle plate at 119M elevation. Welder was identified as 066155. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Shao Hai Long, who was not a CWI. The welding variables recorded by QC2's assistant appeared to comply with WPS-B-T-2331-TC-P4-F-2 and WPS-B-T-2332-TC-P4-F-2, respectively.

FCAW welding of weld joints WSTL4-2B/L-22, 16 located inside PCMK west tower, lift 4, skins B/C to corner angle plate at 142M elevation. Welder was identified as 066484. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Shao Hai Long, who

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was not a CWI. The welding variables recorded by QC2's assistant appeared to comply with WPS-B-T-2331-TC-P4-F-2 and WPS-B-T-2332-TC-P4-F-2, respectively.

FCAW welding of weld joints WSTL4-2B/L-22, 16 located inside PCMK west tower, lift 4, skins B/C to corner angle plate at 134M elevation. Welder was identified as 068919. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Shao Hai Long, who was not a CWI. The welding variables recorded by QC2's assistant appeared to comply with WPS-B-T-2331-TC-P4-F-2 and WPS-B-T-2332-TC-P4-F-2, respectively.

FCAW welding of weld joints WSTL4-2B/L-22, 16 located inside PCMK west tower, lift 4, skins B/C to corner angle plate at 130M elevation. Welder was identified as 068923. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Shao Hai Long, who was not a CWI. The welding variables recorded by QC2's assistant appeared to comply with WPS-B-T-2331-TC-P4-F-2 and WPS-B-T-2332-TC-P4-F-2, respectively.

Heavy Dock

This QA Inspector randomly observed the following work in progress on the heavy dock.

FCAW welding of weld joint NSD1-SA76F/H-17 located inside PCMK north tower, lift 1 base, skin E, shear plate stiffener to connection plate. Welder was identified as 066165. QC was identified as Gong Liang Zhu (QC3). The welding variables recorded by QC3 appeared to comply with WPS-B-T-2333-TC-P4-F.

FCAW welding of weld joint NSD1-SA11-11 located inside PCMK north tower, lift 1 base, skin B, shear plate stiffener to connection plate. Welder was identified as 068596. QC was identified as QC3. The welding variables recorded by QC3 appeared to comply with WPS-B-T-2333-TC-P4-F.

FCAW welding of weld joint NSD1-SA22B/E-31 located inside PCMK north tower, lift 1 base, skin D, shear plate stiffener to connection plate. Welder was identified as 066398. QC was identified as QC3. The welding variables recorded by QC3 appeared to comply with WPS-B-T-2333-TC-P4-F.

FCAW welding of weld joint NSD1-SA22B/E-40 located outside PCMK north tower, lift 1 base, skin D, shear plate stiffener to connection plate. Welder was identified as 068753. QC was identified as QC3. The welding variables recorded by QC3 appeared to comply with WPS-B-T-2333-TC-P4-F.

FCAW welding of weld joint NSD1-SA22B/E-23 located outside PCMK north tower, lift 1 base, skin D, shear plate stiffener to connection plate. Welder was identified as 054069. QC was identified as QC3. The welding variables recorded by QC3 appeared to comply with WPS-B-T-2333-TC-P4-F.

FCAW welding of weld joint SSD1-SA16F/G-40 located outside PCMK south tower, lift 1 base, skin C, shear plate stiffener to connection plate. Welder was identified as 069866. QC was identified as QC3. Assisting QC3 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Yang Mingming, who was not a CWI. The welding variables recorded by QC3's assistant appeared to comply with WPS-B-T-2333-TC-P4-F.

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FCAW welding of weld joint SSD1-SA16F/G-42 located outside PCMK south tower, lift 1 base, skin C, shear plate stiffener to connection plate. Welder was identified as 057244. QC was identified as QC3. Assisting QC3 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Yang Mingming, who was not a CWI. The welding variables recorded by QC3's assistant appeared to comply with WPS-B-T-2333-TC-P4-F.

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

Summary of Conversations:

As noted above.

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 Skyler Guest, 150-0042-2360, who represents the Office of Structural Materials for your project.

Inspected By:	Goulet,George	Quality Assurance Inspector
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Reviewed By:	Dawson,Paul	QA Reviewer
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