

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-015040**Date Inspected:** 28-Apr-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 and OBG 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 10

No apparent welding related work was being performed in Bay 10.

Bay 11

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

SMAW welding of weld joint ED1-STSA4-6-139M-1-6B located on PCMK east tower, strut. Welder was identified as 040724. ZPMC 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 Liu Dao Feng, who was a CAWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-3212-TC-U5b-1. Also present at this location and appearing to be monitoring the welding operations was ABF Representative Zhang Hui Long.

SMAW welding of weld joint ND1-STSA4-6-135M-1-6B located on PCMK north tower, strut. Welder was identified as 046709. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Liu Dao Feng, who was a CAWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-3212-TC-U5b-1. Also present at this location and appearing to be monitoring the welding operations was ABF Representative Zhang Hui Long.

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

SMAW welding of weld joint ND1-STSA4-6-135M-1-73A located on PCMK north tower, strut. Welder was identified as 041271. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Liu Dao Feng, who was a CAWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-3212-TC-U5b-1. Also present at this location and appearing to be monitoring the welding operations was ABF Representative Zhang Hui Long.

SMAW welding of weld joint ED1-STSA4-6-127M-1-95 located on PCMK east tower, strut. Welder was identified as 040655. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Liu Dao Feng, who was a CAWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-4113-1. Also present at this location and appearing to be monitoring the welding operations was ABF Representative Zhang Hui Long.

SMAW welding of weld joint ED1-STSA4-6-127M-1-84 located on PCMK east tower, strut. Welder was identified as 046769. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Liu Dao Feng, who was a CAWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-4113-1. Also present at this location and appearing to be monitoring the welding operations was ABF Representative Zhang Hui Long.

SMAW welding of weld joint ED1-STSA4-6-127M-1-95 located on PCMK east tower, strut. Welder was identified as 040655. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Liu Dao Feng, who was a CAWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-2113. Also present at this location and appearing to be monitoring the welding operations was ABF Representative Zhang Hui Long.

SMAW welding of weld joint ED1-STSA4-6-127M-1-83 located on PCMK east tower, strut. Welder was identified as 046769. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Liu Dao Feng, who was a CAWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-2113. Also present at this location and appearing to be monitoring the welding operations was ABF Representative Zhang Hui Long.

SMAW welding of weld joint ED1-STSA4-6-127M-2-79 located on PCMK east tower, strut. Welder was identified as 202100. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Liu Dao Feng, who was a CAWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-2113. Also present at this location and appearing to be monitoring the welding operations was ABF Representative Zhang Hui Long.

SMAW welding of weld joint ED1-STSA4-6-127M-2-83 located on PCMK east tower, strut. Welder was identified as 044551. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Liu Dao Feng, who was a CAWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-2113. Also present at this location and appearing to be monitoring the welding operations was ABF Representative Zhang Hui Long.

SMAW welding of weld joint ED1-STSA4-6-127M-2-84 located on PCMK east tower, strut. Welder was

WELDING INSPECTION REPORT

(Continued Page 3 of 4)

identified as 044551. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Liu Dao Feng, who was a CAWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-4113-1. Also present at this location and appearing to be monitoring the welding operations was ABF Representative Zhang Hui Long.

Heavy Dock

This QA Inspector randomly observed the following work in progress on the Heavy Dock:

All four tower lifts 2 were sitting erect and appeared to still be attached to the four lifts 1. The ZPMC 4000 ton floating crane was moored to the end of the dock and appeared to have the lifting rigging attached to the lifts 2.

OBG Trial Assembly Area

This QA Inspector randomly observed the following work in progress in the OBG Trial Assembly Area:

SMAW welding of weld joint OBE8C-003 located outside PCMK OBG 8BE/8CE transverse joint, bottom plate to bottom plate. Welders were identified as 037932, 067571. ZPMC QC was identified as ZPMC CWI Liu Hua Jie (QC2). Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Zhang Xiao Ming, who was not a CWI. The welding variables recorded by QC2's assistant appeared to comply with WPS-B-P-2214-B-U2-FCM-1.

SMAW welding of weld joint DP660-001-021 located inside at PCMK OBG 8BE/8CE joint, south (bike path) side I-rib to I-rib. Welder was identified as 070007. ZPMC QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Zhang Xiaoming, who was not a CWI. The welding variables recorded by QC2's assistant appeared to comply with WPS-B-P-3213-B-U3b.

FCAW welding of weld joint OBW7C-006 located inside at PCMK OBG 7DW/7DW transverse joint, north (counterweight) side, side plate to side plate. Welder was identified as 068858. ZPMC QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Wang Zhu, who was not a CWI. The welding variables recorded by QC2's assistant appeared to comply with WPS-B-T-2233T-1.

FCAW welding of weld joint OBW7C-007 located inside at PCMK OBG 7DW/7DW transverse joint, north (counterweight) side, side plate to side plate. Welder was identified as 068445. ZPMC QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Wang Zhu, who was not a CWI. The welding variables recorded by QC2's assistant appeared to comply with WPS-B-T-2233T-1.

FCAW welding of weld joint OBW7C-009 located inside at PCMK OBG 7DW/7DW transverse joint, south (crossbeam) side, side plate to side plate. Welder was identified as 067079. ZPMC QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Wang Zhu, who was not a CWI. The welding variables recorded by QC2's assistant appeared to comply with WPS-B-T-2233T-1.

WELDING INSPECTION REPORT

(Continued Page 4 of 4)

FCAW welding of weld joint OBW7C-010 located inside at PCMK OBG 7DW/7DW transverse joint, south (crossbeam) side, side plate to side plate. Welder was identified as 067876. ZPMC QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Wang Zhu, who was not a CWI. The welding variables recorded by QC2's assistant appeared to comply with WPS-B-T-2233T-1.

FCAW welding of weld joint OBW7C-008 located inside at PCMK OBG 7DW/7DW transverse joint, bottom plate to bottom plate. Welder was identified as 045209. ZPMC QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Wang Zhu, who was not a CWI. The welding variables recorded by QC2's assistant appeared to comply with WPS-B-T-2231T-1.

FCAW welding of weld joint OBW7A-009 located inside at PCMK OBG 7W transverse joint, deck plate to deck plate. Welder was identified as 045276. ZPMC QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Wang Zhu, who was not a CWI. The welding variables recorded by QC2's assistant appeared to comply with WPS-B-T-223(2)1T-2.

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 Eric Tsang, 150-0042-2372, who represents the Office of Structural Materials for your project.

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