

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-011060**Date Inspected:** 04-Jan-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 George Goulet was present during the times noted above for observations relative to the work being performed.

Bay 10

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

FCAW layered repair welding on the end of internal plate SPSA3-4 located on lift 3, skin E. Welder was identified as 053116. ZPMC QC was identified as CWI Du Zhi Qun (QC1). Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC Wang Hao, who was not a CWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-345-FCAW-2G(2F)-repair listed on the unnumbered ZPMC repair order showing 7MM to be added to the end of the above noted plate. Also present at this location and appearing to be monitoring the welding operation was ABF Representative Zhang Qin Jian.

FCAW layered repair welding on the end of internal plate SPSA3-66 located on lift 3, skin C. Welder was identified as 054069. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC Wang Hao, who was not a CWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-345-FCAW-2G(2F)-repair listed on the unnumbered ZPMC repair order showing 8MM to be added to the end of the above noted plate. Also present at this location and appearing to be monitoring the welding operation was ABF Representative Zhang Qin Jian.

SMAW welding of partial joint penetration weld attaching a temporary lifting eye plate to outside of south tower,

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

lift 2, skin C (60 mm thickness), approximately 2300mm from top of lift 2, without sufficient base material preheat.

This QA Inspector observed multiple 110° Celsius Tempilstik temperature indicator marks applied by this QA Inspector to the adjacent base material no more than 3 minutes after welding and within 30mm from the point of welding did not melt. Welder was not identified because he left the area immediately upon my arrival. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC Jiang Xiao Bo, who was not a CWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-2314-TC-P5. Also present at this location and appearing to be monitoring the welding operation was ABF Representative Yang Ye Heng. This QA Inspector notified QC1 and ZPMC QC Jiang Xiao Bo that the insufficient base material preheat temperature was not in compliance with WPS-B-T-2314-TC-P5. This QA Inspector generated an incident report for this date concerning the above noted issue and notified QC1 and ABF Representative Yang Ye Heng of same.

FCAW welding of weld joints SSSL4-1B/L-49, 53 located inside PCMK south tower, lift 4,skins B/C, top and bottom of diagonal corner plate at the 144M elevation. Welder was identified as 058852. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC Jiang Xiao Bo, who was not a CWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-2331-TC-P4-F-2 for weld 49 and WPS-B-T-2332-TC-P4-F-2 for weld 53.

FCAW welding of weld joints SSSL4-1B/L-24, 20 located inside PCMK south tower, lift 4,skins C/D, top and bottom of diagonal corner plate at the 144M elevation. Welder was identified as 066477. ZPMC QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-B-T-2331-TC-P4-2 for weld 24 and WPS-B-T-2332-TC-P4-F-2 for weld 20.

FCAW welding of weld joints SSSL4-1B/L-49, 53 located inside PCMK south tower, lift 4,skins B/C, top and bottom of diagonal corner plate at the 139M elevation. Welder was identified as 068206. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC Jiang Xiao Bo, who was not a CWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-2331-TC-P4-F-2 for weld 49 and WPS-B-T-2332-TC-P4-F-2 for weld 53.

FCAW welding of weld joints SSSL4-1B/L-24, 20 located inside PCMK south tower, lift 4,skins C/D, top and bottom of diagonal corner plate at the 139M elevation. Welder was identified as 067550. ZPMC QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-B-T-2331-TC-P4-2 for weld 24 and WPS-B-T-2332-TC-P4-F-2 for weld 20.

FCAW welding of weld joints SSSL4-1B/L-49, 53 located inside PCMK south tower, lift 4,skins B/C, top and bottom of diagonal corner plate at the 135M elevation. Welder was identified as 058916. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC Jiang Xiao Bo, who was not a CWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-2331-TC-P4-F-2 for weld 49 and WPS-B-T-2332-TC-P4-F-2 for weld 53.

FCAW welding of weld joints SSSL4-1B/L-24, 20 located inside PCMK south tower, lift 4,skins C/D, top and bottom of diagonal corner plate at the 135M elevation. Welder was identified as 037873. ZPMC QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-B-T-2331-TC-P4-2 for weld 24 and WPS-B-T-2332-TC-P4-F-2 for weld 20.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

FCAW welding of weld joints SSTL4-1B/L-49, 53 located inside PCMK south tower, lift 4,skins B/C, top and bottom of diagonal corner plate at the 131M elevation. Welder was identified as 068864. ZPMC QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-B-T-2331-TC-P4-F-2 for weld 49 and WPS-B-T-2332-TC-P4-F-2 for weld 53.

FCAW welding of weld joints SSTL4-1B/L-24, 20 located inside PCMK south tower, lift 4,skins C/D, top and bottom of diagonal corner plate at the 131M elevation. Welder was identified as 068919. ZPMC QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-B-T-2331-TC-P4-2 for weld 24 and WPS-B-T-2332-TC-P4-F-2 for weld 20.

FCAW welding of weld joints SSTL4-1B/L-49, 53 located inside PCMK south tower, lift 4,skins B/C, top and bottom of diagonal corner plate at the 127M elevation. Welder was identified as 201825. ZPMC QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-B-T-2331-TC-P4-F-2 for weld 49 and WPS-B-T-2332-TC-P4-F-2 for weld 53.

FCAW welding of weld joints SSTL4-1B/L-49, 53 located inside PCMK south tower, lift 4,skins B/C, top and bottom of diagonal corner plate at the 123M elevation. Welder was identified as 050041. ZPMC QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-B-T-2331-TC-P4-F-2 for weld 49 and WPS-B-T-2332-TC-P4-F-2 for weld 53.

FCAW welding of weld joints SSTL4-1B/L-24, 20 located inside PCMK south tower, lift 4,skins C/D, top and bottom of diagonal corner plate at the 123M elevation. Welder was identified as 040343. ZPMC QC was identified as QC1. The welding variables recorded by QC1 appeared to comply with WPS-B-T-2331-TC-P4-2 for weld 24 and WPS-B-T-2332-TC-P4-F-2 for weld 20.

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 Serge Sinevod, 134-8257-0045, 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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