

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016781**Date Inspected:** 08-Sep-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 11

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

SMAW welding of weld joint WSD1-TL5-4B/F-3 located on PCMK west tower, lift 5, internal connection plate to skin D. Alternating welders were identified as 067707, 066398. QC was identified as ZPMC CWI Liu Yang (QC1). Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Xu Jie (QCA1), who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-3213-TC-U4c.

SMAW welding of weld joint ESD1-TL5-2B/F-17 located on PCMK east tower, lift 5, internal connection plate to skin D. Alternating welders were identified as 040614, 046704. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA1, who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-3213-TC-U4c.

SMAW welding of weld joint ESD1-TL5-2B/F-14 located on PCMK east tower, lift 5, internal connection plates. Alternating welders were identified as 041271, 040667. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA1, who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-3213-TC-U4c.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

Bay 10

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

SMAW tack welding of weld joints BP3090-001-103, 104, 129, 130 located on PCMK OBG bottom plate to stiffeners. Welder was identified as 061938. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Ma Qian Li (QCA2), who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-B-P-2112.

SAW welding of weld joint BP3094-001-292, side B located on PCMK OBG bottom plate. Welders were identified as 209051, 050295. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA2, who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-B-T-2221-B-L2c-S-2.

SMAW repair welding of weld joint SSD1-TL5-1B-F-53 located on PCMK south tower, lift 5, internal connection plate to skin E. Welder was identified as 052493. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC CWI Yu Zhi Lai (QCA3), who was not a CWI. Welding variables recorded by QCA3 appeared to comply with WPS-485-SMAW-3G(3F)-repair as listed on ZPMC Repair Report T-WR3166.

SMAW repair welding of weld joint SSD1-TL5-1B-F-33A located on PCMK south tower, lift 5, internal connection plate to skin E. Welder was identified as 052930. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA3, who was not a CWI. Welding variables recorded by QCA3 appeared to comply with WPS-485-SMAW-3G(3F)-repair as listed on ZPMC Repair Report T-WR3166.

SMAW welding of weld joint NSD1-TL5-3B-F-7 located on PCMK north tower, lift 5, internal connection plate to skin D. Alternating welders were identified as 037743, 067520. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA3, who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-T-3213-TC-U4c.

FCAW tack welding of weld joint SEG3007AC-002 located on PCMK OBG segment 13AE. QC was identified as ABF CWI Wang Heng (QC2). QC2 was not able to provide this QA Inspector with welder identification information. Welding variables recorded by QC2 appeared to comply with WPS-B-T-2231-B-U3-F, including the root gap of 0 to 3mm.

Heavy Dock

This QA Inspector randomly observed the following work being performed on the Heavy Dock:

No apparent welding related work was being performed on the Heavy Dock. All 4 towers' lift 3 were connected and positioned vertically on a base pedestal at end of the Heavy Dock. All 4 towers' lift 2 were positioned horizontally on the deck of the ship at the end of the Heavy Dock. The ZPMC 4000 ton floating crane was moored alongside the Heavy Dock and was rigged to OBG 9E which was positioned on the Heavy Dock. East and south towers, lift 4 were positioned on top of east and north towers, lift 3, respectively. CB11 was positioned on the deck of the Heavy Dock, near the end where the ship was moored.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

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 Micheal Ng, 159-2184-5703, who represents the Office of Structural Materials for your project.

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