

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019245**Date Inspected:** 11-Jan-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Lv Li Qing**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:** OBG**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance(QA) Inspector Mr. Shrikant Utekar was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. The QA Inspector observed and/or found the following:

BAY # 14

ULTRASONIC TESTING

ZPMC NWIT No: 08127

This QA Inspector performed Ultrasonic Testing (UT) of approximately 10% of the length previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an (UT) report on this date. The members are identified as OBG 13AE. The weld designations are as follows:

SEG3007K-034, 036

SEG3007V-197

During the Ultrasonic testing of the weld SEG3007K-036 this Quality Assurance (QA) Inspector discovered a class "A" non conforming indication measuring approximately 10mm in length, Material thickness is approximately 35mm. The depth of the indications was approximately 32. The indication db rating was +7. The weld is Complete Joint Penetration (CJP) "T" joint. Y locations of indications measured approximately 50mm. For

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indication detail see the "UT" report as same date. Incident report was not issued. As lead QA ZPMC will repair this weld without issuing incident report and re-notified for the inspection.

This QA Inspector randomly observed the following work in progress.

OBG 14EAST

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 068501 performing the Flux Cored Arc Welding process on weld 042 located at PCMK SEG3019Q-1. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2231-ESAB.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066471 performing the Flux Cored Arc Welding process on weld 183 located at PCMK SEG3019V. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2231-ESAB

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 037996 performing the Shielded Metal Arc Welding process on weld 004 located at PCMK SEG3019AZ. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2214-Tc-u4b-Fcm-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 043661 performing the Shielded Metal Arc Welding process on weld 010 located at PCMK SEG3019AL. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2214-Tc-u4b-Fcm-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 067764 performing the Shielded Metal Arc Welding process on weld 004 located at PCMK SEG3019AL. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2214-Tc-u4b-Fcm-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 201087 performing the Shielded Metal Arc Welding process on weld 101 located at PCMK SEG3019BB. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2213-Tc-u4b-Fcm-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 217805 performing the Flux Cored Arc Welding process on weld 129 located at PCMK SEG3019AJ. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2132-ESAB.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 067665 performing the Shielded Metal Arc Welding process on weld 026 located at PCMK SEG3019Y. ZPMC QC Mr. Wang Xu was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2114-1.

This QA Inspector observed ZPMC personnel performing Ultrasonic testing on the repair areas of the weld FB3272 to longitudinal diaphragm, Weld number identified as SEG3019L-1-77.

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This Quality Assurance (QA) Inspector observed ZPMC personnel performing heat straightening, member identified as vertical plate BP3082 and 3083. Distortion appeared to be caused by welding. ZPMC Quality Control (QC) inspector identified as Mr. Lv Li Qing was present to monitor the heat straightening process. The heat straightening appeared to comply with heat straightening Report HSR1 (B)-9979.

This QA Inspector observed ZPMC change the weld detail of the following welds as fillet to complete joint penetration (CJP).

SEG3019F-033/034 (FB3282 to LD3042, PP128)

SEG3019D-1-001/002 (FB3285 to LD3040, PP128.3 app 300mm from top)

SEG3019F-026/027 (FB3282 to LD3040)

This QA informed to lead QA regarding this issue as per lead QA ZPMC submitted the letter of transmittal for this weld.

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



Summary of Conversations:

No significant conversations were reported on this date.

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, +(86) 1500 042 2372, who represents the Office of Structural Materials for your project.

Inspected By:	Utekar,Shrikant	Quality Assurance Inspector
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Reviewed By:	Patterson,Rodney	QA Reviewer
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