

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-022015**Date Inspected:** 27-Feb-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: 08408

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 13BE. The weld designations are as follows:

SEG3009N-034, 035, 031

SEG3009E-266, 271, 276, 281, 286, 291, 296, 301

SEG3009S-054, 055, 078, 079

During the Ultrasonic testing of the weld SEG300N-035 this Quality Assurance (QA) Inspector discovered a class "A" non conforming indication measuring approximately 50mm in length, Material thickness is approximately 22mm. The depth of the indications was approximately 15~20mm. The indication db rating was -6. The weld is

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Complete Joint Penetration (CJP) "T" joint. Y locations of indications measured approximately 100mm from top leading edge of "I" rib stiffener. For indication detail see the "UT" report as same date. Incident report was issued. For additional detail see attached photos.

This QA Inspector randomly observed the following work in progress.

OBG 14EAST

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 067079 performing the Flux Cored Arc Welding process on weld 236 located at PCMK SEG3019J. ZPMC QC Mr. Zhong Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 067665 performing the Shielded Metal Arc Welding process on weld 244 located at PCMK SEG3019M. ZPMC QC Mr. Zhong Guo Hui 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 066439 performing the Flux Cored Arc Welding process on weld 080 located at PCMK SEG3019H. ZPMC QC Mr. Zhong Guo Hui 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 067572 performing the Shielded Metal Arc Welding process on weld 206 located at PCMK SEG3019Q-2. ZPMC QC Mr. Zhong Guo Hui 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 066236 performing the Flux Cored Arc Welding process on weld 127 located at PCMK SEG3019AY. ZPMC QC Mr. Zhong Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

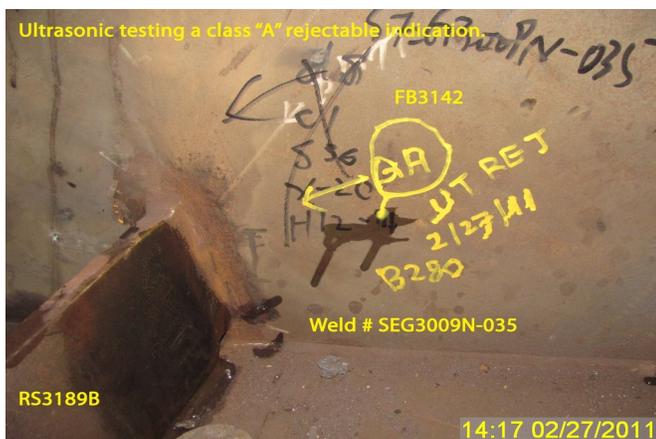
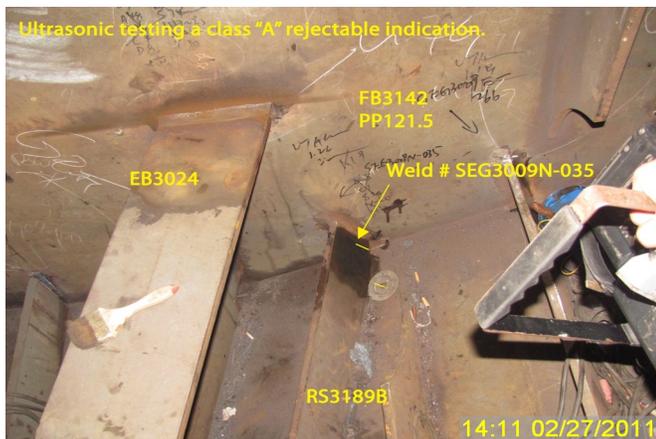
This Quality Assurance (QA) Inspector observed ZPMC qualified welder 068917 performing the Shielded Metal Arc Welding process on weld 020 located at PCMK FB3287-001. ZPMC QC Mr. Zhong Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2114- Fcm-1.

This Quality Assurance (QA) Inspector observed ZPMC personnel performing heat straightening, member identified as vertical shear plate SA3365. Distortion appeared to be caused by welding. Weld number identified as SEG3019BB-181. ZPMC Quality Control (QC) inspector identified as Mr. Zhong Guo Hui was present to monitor the heat straightening process. The heat straightening appeared to comply with heat straightening Report HSR1 (B)-0446.

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

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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

Reviewed By: Patterson, Rodney

QA Reviewer