

**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-019866**Date Inspected:** 27-Jan-2011**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:** OBG**Summary of Items Observed:**

CWI Inspectors: Mr. Li Yan Hua, Mr. Yu Jiao

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai China, for the purpose of monitoring welding and fabrication.

## OBG Bay 13

This QA Inspector observed ZPMC welder Mr. Ye Bing stencil 066733 used flux cored welding procedure WPS-B-T-2233-ESAB to make OBG segment 13AE weld SA7038-014. This QA Inspector observed a welding current of approximately 260 amps and 26.0 volts. This QA Inspector observed the base material was preheated with electrical heaters and Mr. Ye Bing appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

## OBG Bay 14

ZPMC issued "Inspection Notification Sheet" number 08302 item #7 informing Caltrans QA that ZPMC is requesting ultrasonic inspections (UT) of OBG segment 13AE complete joint penetration welds SEG3007AY-012 and 015. This QA Inspector performed random visual and ultrasonic inspections of approximately 15% length of areas previously tested by ZPMC personnel and items observed by this QA Inspector appear to comply with AWS

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D1.5 UT requirements. For additional information on these inspections see this QA Inspector's TL6027 Ultrasonic Test Report.

This QA Inspector observed ZPMC welder Mr. Yang Yunfeng, stencil 215553 used shielded metal arc welding procedure WPS-345-SMAW-3G(3F)-FCM-Repair to make a weld repair of ultrasonic rejections to OBG segment 14E weld SEG3019AA-002. ZPMC QC presented this QA Inspector with weld repair document B-CWR-2774 that documents this weld had been ultrasonically rejected. This QA Inspector measured a welding current of approximately 165 amps. This QA Inspector observed Mr. Yang Yunfeng appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Zhengbin, stencil 216086 used shielded metal arc welding procedure WPS-345-SMAW-3G(3F)-FCM-Repair to make a weld repair of ultrasonic rejections to OBG segment 14E weld SEG3019Z-010. ZPMC QC presented this QA Inspector with weld repair document B-CWR-2775 that documents this weld had been ultrasonically rejected. This QA Inspector measured a welding current of approximately 170 amps. This QA Inspector observed Mr. Wang Zhengbin appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Ni Lei Jiang stencil 037723 used shielded metal arc welding procedure specification WPS-B-P-2214-TC-U4B-FCM-1 to perform OBG segment 14E weld SEG3019E-2-169. This QA Inspector measured a welding current of approximately 160 amps and the base materials had been preheated with electric heating elements. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Qie Jian Zhou, stencil 067571 used shielded metal arc welding procedure specification WPS-B-P-2214-TC-U4B-FCM-1 to make OBG segment 14E weld SEG3019AG-007. This QA Inspector measured a welding current of approximately 155 amps and Mr. Qie Jian Zhou appeared to be certified to make this weld. ZPMC used electric heaters to preheat the base material of this weld joint. Items observed on this date appeared to generally comply with applicable contract documents.



### Summary of Conversations:

See Above.

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## 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 James Devey +8615000026784, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Dawson,Paul	Quality Assurance Inspector
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<b>Reviewed By:</b>	Riley,Ken	QA Reviewer
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