

**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-022146**Date Inspected:** 27-Mar-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:** Zhou Zhong Hai**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 COMPONENT**Summary of Items Observed:**

On this day Caltrans OSM Quality Assurance (QA) Inspector Subhasis Bera was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhen Hua Port Machinery Company (ZPMC) at Chang Xing Island in Shanghai, China. QA Inspector observed and/or found the following:

In process Inspection

Trial Assembly

This QA Inspector observed the following work in progress:

SMAW in the 4G position for OBG segment 12AE, welding of UT repair weld No. OBE12C-030. The Welder is identified as 067752. ZPMC Quality Control is identified as Mr. Wang Li Yang. The welding variables recorded by QC personnel appeared to comply with WPS-345-SMAW-4G(4F)-FCM-REPAIR-1. The weld repair report is identified as WR20511. The welding variables were recorded at, Amperage 161, volts 24.7. The In-process SMAW appears to be progressing in compliance with approved contract documents.

SMAW in the 4G position for OBG segment 12CW, welding of UT repair weld No. OBE12C-025. The Welder is identified as 046709. ZPMC Quality Control is identified as Mr. Zhou Peng. The welding variables recorded by QC personnel appeared to comply with WPS-345-SMAW-4G(4F)-FCM-REPAIR-1. The weld repair report is identified as WR20512. The welding variables were recorded at, Amperage 147, volts 23.4. The In-process SMAW appears to be progressing in compliance with approved contract documents.

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SMAW in the 4G position for OBG segment 13AW, welding of weld No. SEG3013N-152. The Welder is identified as 067764. ZPMC Quality Control is identified as Mr. Zhang Qiang. The welding variables recorded by QC personnel appeared to comply with WPS-B-P-2214-B-U2-FCM-1. The welding variables were recorded at, Amperage 152, volts 23.8. The In-process SMAW appears to be progressing in compliance with approved contract documents.

### Ultrasonic Testing (A,B,C and D-Scan )

This QA Inspector performed Ultrasonic testing (UT) verification of the area previously tested and accepted by ABF Quality control personnel. This QA inspector generated a (UT) report for this date. The member is identified as corner joint joining between side Plate to bottom Plate for OBG cross beam CB17 at west side. The result was recorded onto a data sheet according to rejection criteria of "D" Scan procedure 001 rev.1 that Caltrans QA and ABF QA have jointly filled out on this date. The QA inspector found no rejectable indication at scanned area.

The Weld Designation is as follows

CB3001A-017-016,018

This QA Inspector performed Ultrasonic testing (UT) verification of the area previously tested and accepted by ABF Quality control personnel. This QA inspector generated a (UT) report for this date. The member is identified as corner joint joining between side Plate to Deck Plate for OBG cross beam CB17 at west side. The result was recorded onto a data sheet according to rejection criteria of "D" Scan procedure 001 rev.1 that Caltrans QA and ABF QA have jointly filled out on this date. The QA inspector found no rejectable indication at scanned area.

The Weld Designation is as follows

CB3001A-017-013

### CWR verifications (CWR2890R0)

Type – (D-Scan)

This QA Inspector was notified via email for verification of B-CWR2890 R0 at 1430 hours the following was observed:

- The components for verification were identified as CB3001A-017-005 (CB17 SP to BP East Side)
- Weld repair was to be performed on location where rejectable indication was observed during Ultrasonic Testing (UT)
- ZPMC QC Li Yang was present on site to direct and record all repair work.
- WPS to be used for repair was WPS-345-SMAW-2G(2F)-FCM-Repair-1.

### CWR verifications (CWR2891R0)

Type – (D-Scan)

This QA Inspector was notified via email for verification of B-CWR2891 R0 at 1430 hours the following was observed:

- The components for verification were identified as CB3001A-017-017 (CB17 SP to BP West Side)
- Weld repair was to be performed on location where rejectable indication was observed during Ultrasonic Testing

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(UT)

- ZPMC QC Li Yang was present on site to direct and record all repair work.
- WPS to be used for repair was WPS-345-SMAW-2G(2F)-FCM-Repair-1

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



### Summary of Conversations:

No relevant conversations

### 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 150-0042-2372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Bera,Subhasis

Quality Assurance Inspector

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**Reviewed By:** Dsouza,Christopher

QA Reviewer