

**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-017105**Date Inspected:** 04-Sep-2010**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:** Xu Tao**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 date Caltrans OSM Quality Assurance (QA) Inspector, Subhasis Bera was present during the times noted above for observations relative to the work being performed.

In process Inspection

Bay #14

This QA Inspector observed the following work in progress:

FCAW in the 2F position for the OBG segment 13BW, weld No. CA3016A-066/067. The welder is identified as #202122. ZPMC QC is identified as Mr. Xia Chen Hui. The welding variables recorded by QC appear to comply with WPS-B-T-2132.

Out Side Yard

This QA Inspector observed the following work in progress:

SMAW in the 4G position for the OBG segment 12AE, weld No. SEG3001P-360. The welder is identified as #058087. ZPMC QC is identified as Mr. Wang Xing Pin. The welding variables recorded by QC appear to comply with WPS-B-P-2214-B-U2-FCM.

Ultrasonic Testing (UT) for Suspender Bracket SB78W

This QA Inspector performed Ultrasonic testing (UT) 10% of the area previously tested and accepted by ZPMC

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Quality control personnel. This QA inspector generated a (UT) report for this date. The members are identified as Suspender bracket weld joints.

The welds designation reviewed are as follows:

SB016-078-001,004,007,005,011,020,031,043,055,067

This QA Inspector performed Ultrasonic testing (UT) 10% of the area previously tested and accepted by ZPMC Quality control personnel. This QA inspector generated a (UT) report for this date. The members are identified as 12AE corner weld joints.

SEG3001AA-009,013

During the Quality Assurance Ultrasonic Testing (UT) review of welds located on Orthotropic Box Girder (OBG) Suspender Bracket SB74E, this Quality Assurance Inspector (QA) discovered the following issues that two(2) longitudinal measuring approximately 25 ~40mm in length. The indication db's ratings are a -3db and +4db. Material thickness is 22mm. The depth of the indication is approximately 14mm and 17mm. The weld is identified as SB019-074-004. The weld is Complete Joint Penetration (CJP) "T" joint. The weld is designated as Non Seismic Performance Critical Material (Non SPCM). The indication is clearly marked on or near the weld. The Y distance for this indication is 350 mm and 370mm from edge. Suspender Bracket SB60E is located at Bay#19. The Notice of Witness Inspection (NWIT) No. is 006574. The indication is located within the area previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform hundred (100%) percent UT inspection of this weld.

Visual Inspection after Blast at 11AW

This Quality Assurance (QA) Inspector performed random visual inspection of OBG segment 11AW internal side panel and bottom panel surfaces after grit blasting in between panel point PP97 to PP97.5. Areas that marked for repair were recorded for future repair. Areas requiring additional grinding were marked by QA and repaired by ZPMC personnel.

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:** Patterson,Rodney

QA Reviewer