

**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-023652**Date Inspected:** 11-May-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:** Liu Hua Jie**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 Area

This QA Inspector observed the following work in progress:

SMAW in the 4G position for OBG segment 13AE, welding of UT repair weld No. SEG3007AH-036. The Welder is identified as 200113. ZPMC Quality Control is identified as Mr. Liu Hua Jie. 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 WR20594. The In-process SMAW appears to be progressing in compliance with approved contract documents.

SMAW in the 3G position for OBG segment 13AE, welding of crack repair weld No. SEG3007S-034. The Welder is identified as 037743. ZPMC Quality Control is identified as Mr. Liu Hua Jie. The welding variables recorded by QC personnel appeared to comply with WPS-345/485-SMAW-3G(3F)-FCM-REPAIR-1. The weld repair report is identified as CWR2964. The In-process SMAW appears to be progressing in compliance with approved contract documents.

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SMAW in the 3G position for OBG segment 13AE, welding of UT repair weld No. SEG3007K-020. The Welder is identified as 066416. ZPMC Quality Control is identified as Mr. Liu Hua Jie . The welding variables recorded by QC personnel appeared to comply with WPS-345-SMAW-3G(3F)-FCM-REPAIR-1. The weld repair report is identified as WR20594. The In-process SMAW appears to be progressing in compliance with approved contract documents.

During random in-process visual inspection of welds located on Orthotropic Box Girder (OBG) Segment 12CW, this Quality Assurance (QA) Inspector discovered the following issues that the ZPMC personnel cut and remove eight "T" Rib Stiffener Complete Joint Penetration welds that were previously green tagged on Segment 12CW without prior notification to the Engineer. These stiffeners were previously trial fitted, surveyed, drilled with splice plate holes and match marked at the field splices. Distortion corrected by mechanical means was performed without an approval by the Engineer. ZPMC later provided that the work is being performed according to their internal B-WR 20683 Rev. 0. No Heat Straightening Record (HSR) is provided to date. The HSR procedure is stated in the approved WQCP. The Complete Joint Penetration (CJP) welds are identified as SEG3006B-145,151,156,167 and SEG3006C-161,134,139,144. T-Stiffeners 3061H (1ea.), 3061K (3ea.) attached to Bottom Plate BP3029A and Floor beam FB3098A. T-Stiffeners 3061J (1ea.), 3061K (3ea.) attached to Bottom Plate BP3028A and Floor beam FB3097A. The segment 12CW is located on Ship#18.

This QA Inspector generated an incident report for this date.

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 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