

**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-024472**Date Inspected:** 06-Jun-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:** Mr. Lu 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:** Orthotropic Box Girder (OBG)**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad 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 Chang xing Island in Shanghai, China. QA observed and/or found the following:

**OBG Trial Assembly**

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as OBG Segment 14 East. The weld designations reviewed are as follows.

SEG3019AZ-009, 010, 252, 253, 175, 176, 237, 238, 240, 241, 249, 250, 257, 256, 151, 153, 155,

SEG3019F-001, 104, 105, 108, 109, 112, 113, 116, 117, 120, 121, 124, 125, 128, 129, 132, 133, 136, 137, 140, 141, 144, 145, 148, 149,

SEG3019H-006, 270, 132, 139, 148, 149, 158, 163, 168, 173, 178, 183, 188, 200, 201, 202, 278, 279, 281, 210, 211, 212, 215, 216,

NDT Notification No-09371.

This QA Inspector randomly observed the following work in progress.

SMAW Process:

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This QA Inspector observed ZPMC qualified welding personnel identified as 066398 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14 West near panel point 127. Joint identified as SEG3020L-016. ZPMC QC Identified as Zhu Lin. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2213-Tc-U4b-FCM-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 066361, 066326, 067764 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14 West near panel point 127. Joint identified as SEG3020L-015. ZPMC QC Identified as Zhu Lin. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2212-Tc-U4b-FCM-1.

Repair welding, SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 216086 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14 East inside near panel point 127. VT repair on some locations. ZPMC QC Identified as Zhu Yuan Yuan with Critical welding repair report CWR-B-CWR2944. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-24, 4G (2F, 4F) FCM-Repair-1.

Repair welding, SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 501946 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14 East inside near panel point 127 and panel point 128. VT repair on some locations. ZPMC QC Identified as Zhu Yuan Yuan with Critical welding repair report CWR-B-CWR2944. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-3G (3F) FCM-Repair-1.

Repair welding, SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 069118 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14 East Edge panel I rib joint near panel point 126. Joint identified as SEG3020AG-024. ZPMC QC Identified as Zhu Lin with Temporary welding repair report WRR-B-WR21007. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-4G (4F) FCM-Repair-1.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

### Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

### 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: 15000422372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Gaikwad,Shailesh

Quality Assurance Inspector

**Reviewed By:** Patterson,Rodney

QA Reviewer