

**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 #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015587**Date Inspected:** 10-Jul-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) Chanxing Island**Location:** Shanghai, China**CWI Name:** Mr. Li Yan Hua**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 Segment**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA), Vibin Kumar Selvanayaham, was present during the times noted above for observations relative to the work being performed.

Ultrasonic Testing (UT) – Document No: 006166

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The members are identified as OBG Segment 13AE Bottom Plates. The weld designations reviewed are as follows:

1. BP3033-001-001, 002, 004

Description of Incident: During the Quality Assurance Ultrasonic Testing (UT) review of weld located on Segment 13AE Bottom Plate, this Quality Assurance Inspector (QA) discovered one (1) Class “B” indication measuring approximately 25mm in lengths. The indication D-rating is +5dB. The weld is a Complete Joint Penetration (CJP) butt weld joining the bottom plate BP3033 (PL3217D) to bottom plate BP3033 (PL3218D). The indication is located on the weld joint identified as BP3033-001-001. The thicknesses of the plates are 60mm and depth of the indication approximately 52mm. The indication is clearly marked by QA on/near the weld. This weld joint is designated as non Seismic performance critical weld member (SPCM). The indication is located within the area that has been previously 100% tested and accepted by ZPMC Quality Control (QC) personnel.

OBG Segment 11CW

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## WELDING INSPECTION REPORT

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This QA inspector observed ZPMC qualified welding personnel identified as 066258 perform Shielded Metal Arc Welding (SMAW) Welding on OBG Segment 11CW, weld joint identified as SEG069A-010. ZPMC QC is identified as Mr. Wu Shi Gao. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-345-SMAW-4G (4F)-Repair.

### OBG Segment 11DE

This QA inspector observed ZPMC qualified welding personnel identified as 055564 perform Flux Cored Arc Welding (FCAW) welding on X74 Plate of OBG Segment 11DE, weld joint identified as SEG072F-001, 004 and 005. ZPMC QC is identified as Mr. Li Ping. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2131-Tc-U4b-F..

### Bay 16

This QA inspector observed ZPMC qualified welding personnel identified as 045270 perform Submerged Arc Welding (SAW) Welding on OBG Segment 13AW bottom plate, weld joint identified as BP3073-001-004. ZPMC QC is identified as Mr. Xia Chun Hui. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2221-B-U3c-S-2.

### Visual Inspection after Blast

#### Segment 10AW

This QA Inspector performed a preliminary random visual inspection after the grit blast of the interior components of the deck panel, floor beams and corner assemblies of this segment. Areas of visual weld defects that will require welding were taped and will be repaired after the coating is applied. ZPMC QC personnel are aware of these areas and were present during the inspection.

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

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<b>Inspected By:</b>	Kumar,Vibin	Quality Assurance Inspector
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<b>Reviewed By:</b>	McClendon,Timothy	QA Reviewer
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