

**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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-007412**Date Inspected:** 24-Jun-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Xu Xian Ping**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 and TOWER Components**Summary of Items Observed:**

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

**BAY 1****Ultrasonic Testing**

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 Components. The weld designations reviewed are as follows:

1. FB204 – 016 – 037; 040; 043; 046
2. FB204 – 015 – 037; 040; 043; 046
3. FB204 – 013 – 025; 028; 031; 034; 037; 040; 043; 046
4. FB205 – 014 – 005; 006; 009; 012
5. FB204 – 014 – 025; 028; 031; 034

**BAY 3****Ultrasonic Testing**

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 Components. The weld designations reviewed are as follows:

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1. CB202B – 010 – 004

BAY 6

This QA Inspector observed the following work in progress:

SMAW process welding of weld joint #010 located on WSD1 – DPSA4 – 19B/B. Welder is identified as 067588. ZPMC QC is identified as Zao Liu Hai. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3312 – Tc – P5.

SMAW process welding of weld joint #024 located on NSD1 – DPSA4 – 19B/B. Welder is identified as 068918. ZPMC QC is identified as Zhang Bao Bo. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3313 – Tc – P5.

FCAW process welding of weld joint #027 located on WSD1 – DPSA4 – 4B/B. Welder is identified as 220061. ZPMC QC is identified as Zhang Bao Bo. The welding variables recorded by QC appeared to comply with the WPS – B – T – 4332 – Tc – P4 – F.

SMAW process welding of weld joint #008 located on WSD1 – DPSA4 – 4B/B. Welder is identified as 066478. ZPMC QC is identified as Zao Liu Hai. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3312 – Tc – P5.

BAY 7

This QA Inspector observed the following work in progress:

SMAW process welding of weld joint #034 located on SP3003 – 001. Welder is identified as 051019. ZPMC QC is identified as Zong Dian Xing. The welding variables recorded by QC appeared to comply with the WPS – B – P – 2112 (FCM) – 1.

FCAW process welding of weld joint #102 located on SP3002 – 001. Welder is identified as 054459. ZPMC QC is identified as Shen Jian Guo. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132 – 3.

SAW process welding of weld joint # 006 located on SP3055 – 001. Welder is identified as 053748. ZPMC QC is identified as Zong Dian Xing. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2221 – B – L2C – S – 2.

FCAW process welding of weld joint #110 located on SP3002 – 001. Welder is identified as 051246. ZPMC QC is identified as Shen Jian Guo. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132 – 3.

BAY 8

This QA Inspector observed the following work in progress:

FCAW process welding of weld joint #043 located on Floor Beam FB204 – 033. Welder is identified as 066687.

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ZPMC QC is identified as Zhang Hai Feng. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – u4b – F.

SAW process welding of weld joint #001 located on Cross Beam CB201F – 012. Welder is identified as 207463. ZPMC QC is identified as Zhang Hai Feng. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2221 – B – L2C – S – 2.

This QA Inspector observed the following work not in compliance:

During Quality Assurance (QA) random visual inspection on OBG Floor Beam (FB204 – X203A) at BAY # 08, observed that base metal have been arc gouged approximately exceeding 5mm deep. According to AWS D1.5 2002, the cutting flame shall be so adjusted to avoid cutting beyond the prescribed lines.

For further details please see the incident report (040120F4\_TL015\_B227\_06-24-09\_Base metal damage).

BAY 12

### Ultrasonic Testing

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 Components. The weld designations reviewed are as follows:

1. USPL1 – 067 – 001; 002
2. USPL1 – 090 – 001; 002
3. USPL1 – 074 – 001; 002
4. USPL1 – 094 – 001; 002
5. USPL1 – 086 – 001; 002

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

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<b>Inspected By:</b>	Kumar,Sandeep	Quality Assurance Inspector
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<b>Reviewed By:</b>	Prue,Erik	QA Reviewer
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