

**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-013505**Date Inspected:** 30-Apr-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:** Li Yang**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:** Trial Assembly**Summary of Items Observed:**

On this day Caltrans OSM Quality Assurance (QA) Inspector Christopher D'souza 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:

Trial Assembly

This QA Inspector observed ZPMC welding personals identified as 067079 and 045209 performing Flux Cored Arc welding (FCAW) on OBW7N - 007 and OBW7N - 005 (7BW Counter Weight bracket). ZPMC QC is identified as Wang Zhu. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2231T - 1

This QA Inspector observed ZPMC welding personals identified as 048714 performing Flux Cored Arc welding (FCAW) on OBW7N - 004. ZPMC QC is identified as Wang Zhu. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2232 - Tc - U4b - F - 2

This QA Inspector observed ZPMC welding personals identified as 045221 performing Shielded Metal Arc Welding (SMAW) on OBW7A - 006. ZPMC QC is identified as Wang Zhu. The welding variables recorded by QC appeared to comply with the WPS - B - P - 2213 - B - U2 - FCM - 1

ABF Inspection Request number 04302010-2

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## WELDING INSPECTION REPORT

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This QA Inspector performed Ultrasonic Testing (UT) on approximately 10% of OBG components previously accepted by ZPMC ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3 and Detection of Transverse Planar Discontinuities with Significant Flaw Height Dimension Procedure. The QA Inspector observed rejectable indications at the time of testing. Weld identification numbers were

CA035 – 002, 006 (7BW DP to EP at W2)

This QA Inspector performed conventional UT (Ultrasonic Testing) in conjunction with ABF UT department for detection of planar transverse indication.

See Caltrans Ultrasonic Transverse Indication Evaluation sheet dated April 30th, 2010 for further information on inspection.

ABF Inspection Request number 04302010-1

This QA Inspector performed Ultrasonic Testing (UT) on approximately 10% of OBG components previously accepted by ZPMC ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3 and Detection of Transverse Planar Discontinuities with Significant Flaw Height Dimension Procedure. The QA Inspector observed rejectable indications at the time of testing. Weld identification numbers were

CA031 – 006 (7AW DP to EP at W2)

CA040 – 004 (7CE DP to EP at E2)

This QA Inspector performed conventional UT (Ultrasonic Testing) in conjunction with ABF UT department for detection of planar transverse indication.

See Caltrans Ultrasonic Transverse Indication Evaluation sheet dated April 30th, 2010 for further information on inspection.

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This QA Inspector performed Ultrasonic Testing (UT) on approximately 100% of OBG components previously accepted by ZPMC ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3 and Detection of Transverse Planar Discontinuities with Significant Flaw Height Dimension Procedure. The QA Inspector observed no rejectable indications at the time of testing. Weld identification numbers were

CA 3004 (12CE SP to BP)

This QA Inspector performed conventional UT (Ultrasonic Testing) in conjunction with ABF UT department for detection of planar transverse indication.

See Caltrans Ultrasonic Transverse Indication Evaluation sheet dated April 30th, 2010 for further information on inspection.

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This QA Inspector was involved in PAUT (Phased Array Ultrasonic Testing) training for detection of cracked tacks in Deck Panels as per the following procedure “UT 04-0120F4 PJP Rib Weld Phased Array Ultrasonic Testing for the Detection and Sizing of Suspected Planar Discontinuities (Cracks) in PJP Welds”

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the 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>	Dsouza,Christopher	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer

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