

**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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-009260**Date Inspected:** 29-Sep-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 Yumin and Li Jia**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**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Joe Alaniz 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 Changxing Island in Shanghai, China. QA observed and/or found the following:

OBG Assembly Yard

## OFFICE

This QA Inspector attended coordination meeting with ABF representatives to discuss Ultra Sonic (UT) inspection of Segment splice welds. Meeting included scanning pattern being used, locating and recording transverse indication on "Ultrasonic Transverse Indication Evaluation" report form created by Caltrans Level III.

2AE &amp; 2BE

This QA Inspector performed Ultra Sonic (UT) inspection of weld joint OBE2-005 and OBE2-003 utilizing scanning pattern D to detect transverse indication reflectors. Noted UT inspection was performed in conjunction with ABF UT Department.

1AAW &amp; 1AW

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SMAW repair welding of weld joint 010 located on OBW1.

Welder is identified as Mr. Bi Shijian (068764). ZPMC QC is identified as Xu Yumin.

The welding variables recorded by QC appeared to comply with WPS-345-SMAW-1G (1F)-Repair and repair procedure WR7651.

SMAW repair welding of weld joint 001 located on OBW1.

Welder is identified as Mr. Qie Jianzhou (067571). ZPMC QC is identified as Xu Yumin.

The welding variables recorded by QC appeared to comply with WPS-345-SMAW-1G (1F)-Repair and repair procedure CWR774. Y location of repair is approximately 18,180mm.

1AAE & 1AE

SMAW welding of weld joints 047, 050, 057 and 058 located on OBE1.

Welder is identified as Mr. Yun Chengxian (045138). ZPMC QC is identified as Xu Yumin.

The welding variables recorded by QC appeared to comply with WPS-B-T-2113-FCM-1.

SMAW welding of weld joints 043, 044, 039 and 040 located on OBE1.

Welder is identified as Mr. Li Bo (050433). ZPMC QC is identified as Xu Yumin.

The welding variables recorded by QC appeared to comply with WPS-B-T-2114-FCM-1.

NDT Observation

This QA Inspector observed ZPMC Ultra Sonic (UT) Technician performing UT on various locations in the trial assembly yard. Locations are as followed:

1. UT was performed on 1AAE and 1AE repaired areas by ZPMC. Measurements were pulled from edge of weld OBE-010. Y locations and welds are as followed:

OBE1-001- 200mm

OBE1-001- 260mm

OBE1-001- 400mm

OBE1-001- 1800mm

OBE1-001- 2,040mm

OBE1-001- 2,200mm

OBE1-001- 2,480mm (New UT reject observed at this location on today's work shift)

OBE1-001- 3,300mm

OBE1-001- 3,400mm

OBE1-001- 5,750mm

OBE1-001- 7,300mm

OBE1-001- 7,500mm

OBE1-001- 7,650mm

OBE1-001- 21,060mm

OBE1-001- 21,300mm

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# WELDING INSPECTION REPORT

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This QA Inspector observed ZPMC Magnetic Particle (MT) Technician performing MT on various locations in the trial assembly yard. Locations are as followed:

1. ZPMC MT technician performed MT on the plug holes (2 ea) excavation at 1AW counter weight side of segment. Several MT indications were observed at the time of inspection at both excavation areas.

Unless otherwise noted, all work observed on this date appeared to generally comply with 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 (134-8257-0045), who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Alaniz,Joe	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer

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