

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

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-004594**Date Inspected:** 30-Oct-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1430**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sun Wei**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:** Tower Components**Summary of Items Observed:**

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

**Bay 8 - OBG Sub Assembly**

This QA Inspector observed ZPMC welding personnel performing Flux Core Arc Welding (FCAW) of tower double diaphragm component weld designated as North Shaft / 18m. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure.

This QA Inspector observed ZPMC welding personnel performing Flux Core Arc Welding (FCAW) of tower double diaphragm component weld designated as WSD1-SA415. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure.

This QA Inspector observed ZPMC welding personnel performing Flux Core Arc Welding (FCAW) of tower double diaphragm component weld designated as SSD1-SA359. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure.

This QA Inspector observed ZPMC welding personnel performing Flux Core Arc Welding (FCAW) of tower double diaphragm component weld designated as SSD1-SA362. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure.

This QA Inspector observed ZPMC welding personnel performing Flux Core Arc Welding (FCAW) of tower

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double diaphragm component weld designated as ESD1-SA421. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure.

This QA Inspector observed ZPMC welding personnel performing Flux Core Arc Welding (FCAW) of tower double diaphragm component weld designated as SSD1-SA361. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure.

This QA Inspector observed ZPMC welding personnel performing Flux Core Arc Welding (FCAW) of tower double diaphragm component weld designated as NSD1-SA244. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure.

### Bay 7 – OBG Sub Assembly

#### Visual Testing

This QA performed Visual Testing (VT) of completed side panels and bottom panels. The weld were found visually acceptable per Caltrans Engineer Approved Welding Procedure. The deck panel designation numbers are as follows: SP156-001-13~24, SP461-001-56~67, SP618-001-1~12, and BP145-001-7~18.

#### Magnetic Particle Testing

This QA Inspector performed Magnetic Particle Testing (MT) of approximately 25% of the area previously tested by ZPMC MT personnel. This QA Inspector generated a TL-6028 MT report on this date. The deck weld designation numbers are as follows: (SP156-001-13~24, SP461-001-56~67, SP618-001-1~12, and BP145-001-7~18).

#### Green Tag

This QA performed Visual Testing (VT) of completed floor beams for in process green tags. The welds were found visually acceptable per Caltrans Engineer Approved Welding Procedure. The floor beam designation numbers are as follows: FB016-028, FB009-016, and FB015-028.

### Bay 3 – OBG Sub Assembly

This QA Inspector observed ZPMC welding personnel performing automated, in gantry, Flux Core Arc Welding (FCAW) of welds to side plate designated as SP103-001-001 and SP130-001 on Gantry. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure.

This QA Inspector observed continued Flux Core Arc Welding (FCAW) tack welding and fit-up of closed rib components to deck plates designated as: SP157-001, SP726-001, and SP620-001.

### Bay 1 - OBG Sub Assembly

This QA Inspector observed ZPMC welding personnel performing automated, in gantry, Gas Metal Arc Welding (GMAW) of closed rib Partial Joint Penetration (PJP) welds to deck plate designated as DP336-001 on Gantry #1. In process GMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure.

This QA Inspector observed continued Gas Metal Arc Welding (GMAW) tack welding and fit-up of closed rib components to deck plates designated as: DP472-001, DP260-001, DP369-001 and DP368-001.

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## Tracking and Log Book

This QA Inspector reviewed the contract files and tracking logs for the Magnetic Particle Testing (MT), Ultrasonic Testing (UT), Welding Procedure Specifications (WPS), Procedure Qualification Records (PQR), and QC Inspector records for the deck panel repairs to date.

## 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 Josh Ishibashi, (858) 232-6799, who represents the Office of Structural Materials for your project.

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| <b>Inspected By:</b> | Clifford,William | Quality Assurance Inspector |
| <b>Reviewed By:</b>  | Cuellar,Robert   | QA Reviewer                 |

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