

**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-006615**Date Inspected:** 24-Apr-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1845**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 645**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	N/A	<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>
<b>Inspected CWI report:</b>	<b>Yes</b> <b>No</b> <b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b> <b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b> <b>No</b> <b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b> <b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b> <b>No</b> <b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b> <b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b> <b>No</b> <b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b> <b>N/A</b>
		<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b> <b>N/A</b>
<b>Bridge No:</b>	34-0006	<b>Component:</b>	OBG and Tower	

**Summary of Items Observed:**

Summary of Items Observed: On this date Caltrans OSM Quality Assurance (QA) Inspector, Larry Viars was present during the times noted above for observations relative to the work being performed.

Bay 9-

This QA Inspector performed Phased Array Ultrasonic Testing (PAUT) of OBG deck panel u-rib Partial Joint Penetration (PJP) welds at tack weld locations. Caltrans NDT personnel performed conventional ultrasonic testing of tack welds. Tack weld locations that exhibited crack like indications in the area of interest were marked and recorded prior to PAUT. PAUT was performed in accordance with Caltrans UT procedure "Phased Array Testing for detection of planar discontinuities (cracks) in PJP welds. Results of Deck Panels evaluated are as follows:

DP394-001 (9CE): 39 locations tested with 26 locations rejected.

This QA inspector performed conventional Ultrasonic (A scan) Inspection of tack welds on deck panels. Indications located within the area of interest were marked and recorded for phased array evaluation. This QA inspector performed UT on deck panel DP314-001 (9DE). The following summary below shows total of tack weld locations scanned, amount of indications and the percentage of indications for tack welds inspected on the panel.

DP314-001 (9DE):

Weld 1, 28 tacks scanned with 4 indications

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Weld 2, 28 tacks scanned with 0 indications  
Weld 3, 28 tacks scanned with 0 indications  
Weld 4, 28 tacks scanned with 1 indication  
Weld 5, 28 tacks scanned with 1 indication  
Weld 6, 28 tacks scanned with 1 indication

168 tacks scanned with 7 indications (4.16%)

Bay 10-

This QA inspector performed Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as North Tower Lift 3Skin E plate , NSD1-FESA3-1 A/D (A side). The weld identification numbers are as follows, 013A, 014, 016, 017, 019A, 022A and 023.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

**Summary of Conversations:**

Only general conversations between QC and QA occurred this date.

**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 150 0042 2372, who represents the Office of Structural Materials for your project.

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