

**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-011080**Date Inspected:** 11-Dec-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

<b>CWI Name:</b>	Du Zhi Qun, An Qin Xiang.	<b>CWI Present:</b>	Yes	No	
<b>Inspected CWI report:</b>	Yes No N/A	<b>Rod Oven in Use:</b>	Yes	No	N/A
<b>Electrode to specification:</b>	Yes No N/A	<b>Weld Procedures Followed:</b>	Yes	No	N/A
<b>Qualified Welders:</b>	Yes No N/A	<b>Verified Joint Fit-up:</b>	Yes	No	N/A
<b>Approved Drawings:</b>	Yes No N/A	<b>Approved WPS:</b>	Yes	No	N/A
		<b>Delayed / Cancelled:</b>	Yes	No	N/A
<b>Bridge No:</b>	34-0006	<b>Component:</b>	Tower Components		

**Summary of Items Observed:**

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

This QA Inspector observed the following work in progress:

Bay 11, East Tower, Lift 4, CD Corner Seam near 139M Double Diaphragm.

FCAW Thrid Time Repair welding of weld joint ESTL4-2B/K-57A (CWR # T-CWR478); located on Bay 11, East Tower, Lift 4. Welders are identified as 049099; ZPMC Quality Control Inspector (QC) is identified as An Qin Xiang. The welding variables recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-345-FCAW-2G(2F)-REPAIR.

This repair have been attempted on the Excavation where ZPMC found "Linear Indications Transverse to the Weld Axis" on the date 10th Dec. 2009 (Refer QA Inspector's Welding Inspection Report for the specified date.)

This repair was carried out according to Critical Weld repair report (CWR # T-CWR478). In this CWR ZPMC QC noted discription of dicontinuity found as "Slag".

Bay 10, South Tower, Lift 4, AB Corner Seam.

During in-process "Visual inspection" this Quality Assurance (QA) Inspector observed "Transverse Crack Like Indication" at the excavated area on a Complete Joint Penetration (CJP) weld Identified as SSTL4-1B/L-4A, at A/B Corner Seam of South Shaft Lift 4. This weld was previously rejected by ZPMC Non Destructive Testing (NDT) personnel. The excavation was performed at the 123m double diaphragm, near temporary attachment area. ZPMC personnel confirmed this indication by Magnetic Particle Testing (MT). This QA inspector observed a

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“Crack like Linear Indication Transverse to the Weld axis” approximate 15mm in length.

This QA Inspector asked ZPMC Quality Control (QC) Inspector Canon for applicable documentation supporting this repair. ZPMC QC Inspector provided this QA Inspector with a temporary Weld Repair Report (WRR) which had no document number. Incident report has been submitted on this issue on same date.

Bay 10, East Tower, Strut.

SMAW welding of weld joint ED1-STSA3-2-99M-1-54, 53; located on Bay 10, East Tower. Welders are identified as 050038; ZPMC Quality Control Inspector (QC) is identified as Du Zhi Qun. The welding variables recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-B-T-4113-1.

This QA Inspector carried out NDE on following

Bay 10, South Tower, Lift 4, Skin E, Padeye.

This QA inspector performs Random Visual Testing (VT), Magnetic Particle Testing (MT) of approximately 15% area previously tested and accepted by ZPMC Quality Control personnel FOR GREEN TAG. This QA Inspector generated an MT report (TL-6028) for this date. The members are identified as SSD1-FESA4-1A/F-26 TO 49. (Total 24 Nos. of pad eyes. ZPMC have 10% MT on Pad eyes. QA performed 15% MT on SSD1-FESA4-1A/F-26, 27.)

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 Serge Sinevod, 13482570045, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Juvekar,Amit	Quality Assurance Inspector
<b>Reviewed By:</b>	Clifford,William	QA Reviewer

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