

**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-010536**Date Inspected:** 29-Nov-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	NA	<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>	OBG	

**Summary of Items Observed:**

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

**Blast Shop #1**

This QA Inspector and Caltrans QA Inspector Mr. Utekar performed random visual inspections of the interior upper surfaces of OBG Segment 7EE. ZPMC had recently completed grit blasted of these areas and the steel surfaces are now mostly free of rust oxide and other contaminants that had previously obscured portions of the plate surfaces and welds. This QA Inspector visually observed approximately 50 locations that require grinding or welding to resolve visual weld spatter, arc strikes, shallow nicks, scrapes, partially removed temporary attachments and other minor surface rejections. The areas were marked with colored chalk and ZPMC has several workers using grinders to remove the visually unacceptable areas and ZPMC has assigned a magnetic particle (MT) inspector to perform MT of the arc strike removal areas.

**OBG Trial Assembly Yard**

ZPMC issued "Inspection Notification Sheet" number 11292009-3 item 1 informing QA that ABF Inspectors will be performing magnetic particle (MT) inspections of OBG segment weld OBW2A-002 and -003 repair locations between OBG segment 2AW and 2BW side plate butt welds on the counterweight side at 1930 hours. At around

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## WELDING INSPECTION REPORT

( Continued Page 2 of 2 )

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1930 hours this QA Inspector arrived at OBG segment 3E and observed ABF MT Inspector Mr. Huang Hui marking the areas that need to be wire brushed prior to performing magnetic inspections of the weld repairs. After the areas had been power wire brushed, this QA Inspector witnessed ABF Inspector Mr. Huang Hui performing MT inspections of the repair areas from Y=0 mm to approximately Y=3000 mm and at location 2080 Mr. Huang Hui observed and marked a linear indication. Mr. Huang Hui informed this QA Inspector that this linear indication will be ground and reinspected with MT equipment at a later time. When ZPMC started to perform grit blasting of the inside surfaces at the end of segment OBW2A, MT inspections were discontinued due to the airborne grit and dust caused by the grit blasting. At around 0330 hours this QA Inspector performed MT inspections of the weld repair areas between elevation 3000 mm and 8000 mm and items observed on this date appeared to generally comply with applicable contract documents.

ZPMC issued "Inspection Notification Sheet" number 11292009-3 item 8 informing QA that ABF Inspectors will be performing magnetic particle (MT) inspections of OBG segment weld SEG10A-007 repair locations between OBG segment 2E side plate to bottom plate on the cross beam side at 1930 hours. At around 2200 hours this QA Inspector observed ABF personnel wire brushing 2400 mm length which includes all of the weld repairs prior to performing magnetic inspections of the weld repairs. This QA Inspector witnessed ABF Inspector Mr. Huang Hui performing MT inspections of entire 1800 mm length of weld and at approximately Y=500 mm, Mr. Huang Hui observed and marked a linear indication. Mr. Huang Hui informed this QA Inspector that this linear indication will be ground and reinspected with MT equipment at a later time. Items observed by this QA Inspector on this date appeared to generally comply with applicable contract documents.

### Summary of Conversations:

See Above.

### 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 phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

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

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