

**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-011339**Date Inspected:** 02-Jan-2010**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**CWI Name:** See Below**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:**

CWI Inspector: Mr. Du Zhiquan

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 performed random visual inspections of the upper internal surfaces of OBG Segment 8BW between OBG panel point (PP)66 and panel point PP67 as per ZPMC Notice of Inspection request number 2423. ZPMC had recently completed grit blasting, prior to application of paint, and the steel surfaces that were inspected were mostly free of rust oxide and other contaminants that had previously obscured portions of the plates and weld surfaces. This QA Inspector visually observed approximately 50 locations that required grinding to resolve visual weld spatter, arc strikes, shallow nicks, scrapes, and other minor surface rejections. The areas were marked with colored chalk and ZPMC workers used electric grinders to remove the visually unacceptable areas and ZPMC performed magnetic particle inspections of the arc strike removal areas after they were removed.

**OBG BAY 5**

This QA Inspector observed ZPMC welder Mr. Si Gao Feng, stencil 204342, is using flux cored welding

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## WELDING INSPECTION REPORT

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procedure WPS-B-T-2231-TC-U4C-F to make bikepath cantilever beam groove weld BK001-049-002. This QA Inspector observed a welding current of approximately 320 amps 31.7 volts and Mr. Si Gao Feng appears to be certified to make this weld and the base material appears to have been preheated with a torch prior to commencement of welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Gui Jun, stencil 067275 is using flux cored welding procedure WPS-B-T-2231-TC-U4C-F to make bikepath cantilever beam groove weld BK001-050-002. This QA Inspector observed a welding current of approximately 320 amps 31.5 volts and Mr. Wang Gui Jun appears to be certified to make this weld and the base material appears to have been preheated with a torch prior to commencement of welding. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Assembly, Cross Beam 6

This QA Inspector observed ZPMC welder Mr. Tang Huai, stencil 205775 is using shielded metal arc process to tack weld OBG floor beam stiffener plate "hold back" fillet weld FB36A-007. This weld is located inside Cross Beam 6 (CB6). This QA Inspector observed a welding current of approximately 170 amps and Mr. Tang Huai appears to be certified to make this weld. This QA Inspector did not observe any ZPMC QC personnel in the area where this welding was taking place. Shortly after the time that this QA Inspector observed this welding current, Mr. Tang Huai dropped his welding electrode holder to the floor of CB6 and after he rolled up his welding cable, he left the area. This QA Inspector did not observe a welding electrode storage oven and this QA Inspector attempted to ask this welder and one of the ZPMC supervisors if a welding electrode storage oven had been used. Mr. Tang Huai and the ZPMC supervisor did not appear to respond to this question. All other personnel in this location also stopped working and all workers rolled up their electrical cords and left the interior of CB6.

### 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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