

**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-011791**Date Inspected:** 21-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:** Tower**Summary of Items Observed:**

CWI Inspector: Mr. Liu Zhong An

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:

## Tower Bay 10

This QA Inspector observed ZPMC welder Mr. Jiang Taian, stencil 050038 is using shielded metal arc welding procedure WPS-345-SMAW-2G(2F)-Repair to perform minor weld repairs to various locations on the exterior surface of South Tower Lift 4 skin C. ZPMC QC personnel informed this QA Inspector that this work is being performed based on a draft weld repair document which will receive a tracking number at a later time. This QA Inspector observed ZPMC is using a torch to preheat the base material prior to welding and ZPMC workers are using a temperature indicating "Tempilstik" device to verify the base the base material adjacent to where the weld was being deposited is properly preheated. This QA Inspector measured a welding current of approximately 160 amps and Mr. Hu Yacheng appears to be certified to make this weld. Items observed by the QA Inspector appear to comply with project specifications.

This QA Inspector observed ZPMC welder Mr. Huang Zhao, stencil 056200 is using shielded metal arc process procedure WPS-B-P-2114 to make pad eye ring weld NSDSSTL4-1J/L-18 on the exterior surface of North tower

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## WELDING INSPECTION REPORT

( *Continued Page 2 of 2* )

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lift 3 skin plates. This QA Inspector observed ZPMC personnel are using a torch to preheat the base material prior to welding and QC personnel are monitoring the base material interpass temperatures. Items observed on this date appeared to generally comply with applicable contract documents

This QA Inspector observed ZPMC welder Ms. Ye Xulan, stencil 040581 is using shielded metal arc welding procedure WPS-B-P-2114 to make temporary welds to attach work platform brackets to the exterior surface of North tower lift 3 skin plates. This QA Inspector observed ZPMC personnel are using a torch to preheat the base material prior to welding and QC personnel are monitoring the skin plate preheat temperatures. Items observed on this date appeared to generally comply with applicable contract documents

ZPMC issued "Inspection Notification Sheet" number 5107 informing QA that ZPMC has completed visual and magnetic particle inspections of lift 4 North Tower skin plate D to skin plate E weld NST14-3b/1-2b for a length of 1200 mm at each of the seven double diaphragms. These portions of the welds will be inaccessible once ZPMC installs additional plates on each side of the double diaphragms. This QA Inspector observed the welds appear to comply with AWS D1.5 visual and magnetic particle inspection requirements. For additional information on these inspections see the TL6028 Magnetic Particle Test Report.

**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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