

**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-005364**Date Inspected:** 16-Jan-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1745**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 Fabrication**Summary of Items Observed:**

CWI: Mr. Sun Wei

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. The QA Inspector observed the following:

## OBG Bay 9

This QA Inspector observed ZPMC welder Mr. Song Yun Shu, stencil 59421 is using flux cored welding procedure WPS B-T-2232-TC-U5F to make repairs to OBG deck plate DP565-001-013 R1. Prior to welding the QA Inspector observed the base material had been preheated using electrical heater elements. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

This QA Inspector observed ZPMC welder Mr. Gao Xin Dong, stencil 59361 is using flux cored welding procedure WPS B-T-2232-TC-U5F to make repairs to OBG deck plate DP600-001-017 R1. Prior to welding the QA Inspector observed the base material had been preheated using electrical heater elements. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

This QA Inspector observed ZPMC welder Mr. Jiang Ting Quang, stencil 062265 is using the flux cored welding procedure WPS B-T-2232-TC-U5F to make repairs to OBG deck plate DP595-001 weld #13 R1. Prior to welding

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# WELDING INSPECTION REPORT

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the QA Inspector observed the base material had previously been preheated using electrical heater elements. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

This QA Inspector observed ZPMC welder Mr. Xu Guo Yin, stencil 59443 is using flux cored welding procedure WPS B-T-2232-TC-U5F to make repairs to OBG deck plate DP540-001-015 R1. Prior to welding the QA Inspector observed the base material had been preheated using electrical heater elements. ZPMC does not appear to have implemented any distortion control of these plates during the repair process and several of the stiffener plates are at various angles and the baseplate appears to be distorted. The QA Inspector showed these distorted plates to ABF representative Mr. Raymond Mah Chong-Man who said these distorted plates will be heat straightened.

OBG Bay 6

The QA Inspector observed ZPMC has performed flame cutting of stiffener plates that are labeled to be installed on Side Plates SP735B and SP581B and the flame cut edges have several 6mm deep gouges where fillet welds are to be installed. AWS D1.5 paragraph 3.1.2 states: All welding and thermal-cutting equipment shall be so designed and manufactured, and shall be in such condition, as to enable designated personnel to follow the procedures and attain the results described elsewhere in the code. An Incident Report was issued to document this violation.

## 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
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<b>Reviewed By:</b>	Clifford,William	QA Reviewer
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