

**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-007555**Date Inspected:** 29-Jun-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	Xu Le Feng, Yu Dong Ping	<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>	
<b>Inspected CWI report:</b>	<b>Yes</b> <b>No</b> <b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b> <b>No</b> <b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b> <b>No</b> <b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b> <b>No</b> <b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
		<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Bridge No:</b>	34-0006	<b>Component:</b>	TOWER		

**Summary of Items Observed:**

The Caltrans (CT) Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

**Outside Yard at Vertical Mill:**

The QA Inspector randomly observed the vertical mill was in operation and that milling was being performed simultaneously on Skin Plates A through E at the top of Lift 1 East Tower Shaft at elevation 50.30 M and Skin Plates A through E at the bottom of Lift 2 East Tower Shaft at elevation 50.30 M. The attached photograph provides additional detail.

The QA Inspector randomly observed 2 ZPMC production personnel utilizing track mounted torch cutting apparatus to cut the bevels on the base of Lift 1 East on Skin Plates B and C.

The QA Inspector randomly observed that no contract work was being performed in the interior or on the exterior of or Lift 2 East Tower Shaft.

**Heavy Equipment Shop Bay 10:**

The QA Inspector randomly observed ZPMC welders Fan Chun Lei ID 040491 and Jiang tai An ID 050038, utilizing the Shielded Metal Arc Welding (SMAW) Process in the 3F (Vertical Fillet) Position with ZPMC Weld

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# WELDING INSPECTION REPORT

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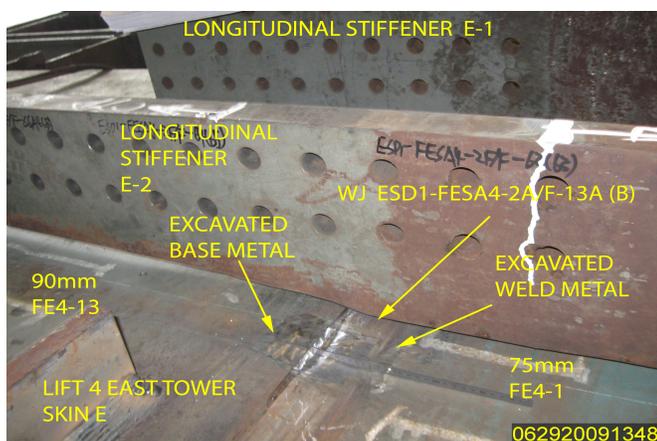
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Procedure Specification (WPS) WPS-345-SMAW-3G (3F) to weld overlay on the external stiffeners after removal of backing on Lift 1 North Tower. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

## Heavy Equipment Shop Bay 11:

The QA Inspector randomly observed that weld metal and base metal had been removed at the transition joint from 90 millimeter (mm) FE4-13 to 75 mm FE4-1 of Skin Plate E for Lift 4 East Tower Shaft. The weld metal and base metal had been removed to allow for the fit up of Longitudinal Stiffener piece mark E2 at Weld Joint (WJ) ESD1-FESA4-2A/F-13A. The QA Inspector randomly observed that the transition on E2 was forward of the actual weld transition. The work was performed without the Engineer's approval and therefore not in compliance with contract requirements. The QA Inspector generated an Incident Report. The attached photographs provide additional detail.

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>	Franco,Charlie	Quality Assurance Inspector
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<b>Reviewed By:</b>	Clifford,William	QA Reviewer
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