

**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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019864**Date Inspected:** 02-Jan-2011**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. Yu Jiao

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.

OBG Bay 14

Segment 13 West

ZPMC presented QA personnel with "Notification of Witness Inspection" document number 8022 item 2 that stated ZPMC was requesting Caltrans to perform visual and magnetic particle (MT) inspections of OBG segment 13W longitudinal diaphragm to deck plates DP3147-001 and DP3148-001 welds in Bay 14.

This QA Inspector performed random visual and magnetic particle (MT) inspections of the following welds:

DP3147-001-091~095,098~103,108~111,114~116,119,122~127,130~135, 138~143, 146~151,154~158,162~167, 170~175,178~183,186~191,194~199,202~207,210, 226,227,229 and 230.

DP3148-001-115~117,120,123~128,130,133~139,142~148,152~161,164~170,174~181, 184~191,194~203, 206~212,216~223,226~233 and 236~240.

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# WELDING INSPECTION REPORT

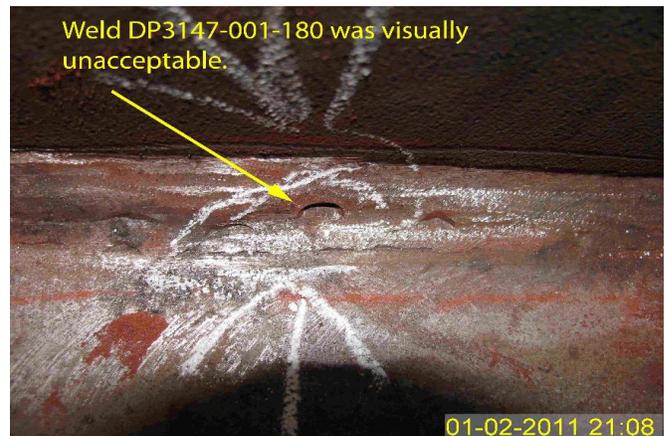
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Other Caltrans QA Inspectors performed MT inspections of similar welds on these and other deck plates. This QA Inspector observed welds DP3147-001-180, DP3147-001-230 and DP3147-131 were visually rejectable due to weld overlap and underfill. This QA Inspector showed these three visually unacceptable welds to ABF CWI Mr. Yu Jiao and he marked these areas as requiring weld repairs. Approximately eight other welds had overlap and ZPMC workers performed grinding of these areas. Following welding and grinding of various welds, items observed by this QA Inspector appeared to comply with AWS D1.5 MT and VT requirements. For additional information on these inspections see this QA Inspector's TL6028 Magnetic Particle Test Report and the photographs below.

This QA Inspector observed ZPMC welder Mr. Wang Zhengbin, stencil 216086 used shielded metal arc welding procedures WPS-345-SMAW-2G(2F)-FCM-Repair-1 and WPS-345-SMAW-3G(3F)-FCM-Repair-1 to repair of visual rejections in welds DP3147-001-180, DP3147-001-230 and DP3147-001-131. This QA Inspector measured a welding current of approximately 225 amps. The base materials had been preheated with an acetylene torch and Mr. Wang Zhengbin appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.



## Summary of Conversations:

See Above.

## Comments

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## WELDING INSPECTION REPORT

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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 James Devey +8615000026784, 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>	Riley,Ken	QA Reviewer

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