

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-002164**Date Inspected:** 11-Apr-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Chen Chci Ming/ Wu Ming Kai			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:

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

OBG Assembly Shop:

The QA Inspector randomly observed ZPMC Welding Operator Sun Guo Zuo ID 058100, utilizing the Submerged Arc Welding (SAW Process with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2221-B-L2C-S-1 to complete the filler passes for the complete joint penetration (CJP) weld joint SEG014A-001.

The QA Inspector observed that during the shift ZPMC CWI, Chen Chci Ming and various CAWI Inspectors were monitoring the electrical parameters, travel speed and temperatures during the shift.

During the welding the QA Inspector randomly verified the welding machine amperes at 530 amperes and 32 volts utilizing a Fluke Meter.

The QA Inspector visually verified a single electrode was being utilized for the filler passes. The filler metal being used was JW-3 with a diameter of 4.8 millimeters the welding was in progress and appeared to conform with the welding procedure specifications (WPS) and the contract requirements.

OBG Assembly Shop:

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The QA Inspector observed ZPMC qualified welders Mr. Zhang Qingquan ID 044774 utilizing Flux Cored Arc Welding (FCAW) process with ZPMC Weld Procedure Specification (WPS) WPS B-T-2231-B-U2-F to weld the complete joint penetration (CJP) weld the root pass joint numbers: SEG020A-001.

During the welding of this joint the QA Inspector verified the welding machine amperes at 295 amperes and 31 volts utilizing a Fluke Meter. The work being performed was in progress generally appeared to conform to contract specifications.

The QA Inspector observed that during the shift ZPMC CWI, Chen Chci Ming and various CAWI Inspectors were monitoring the electrical parameters, travel speed and temperatures during the shift.

The welding being performed appeared to comply with the above listed WPS and conform with the contract requirements.

Bay 3 OBG:

The QA Inspector randomly observed ZPMC Welder Sun Ti Yu ID 054459 utilizing the FCAW Process with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2132-3 in the 2F (Horizontal) position utilizing the Automatic Welding Carriage, to weld various stiffeners to Side Plate Sub-Assembly SP425-001.

The QA Inspector made a random visual verification of the welding in progress on the following weld joints: SP425-001-003 and 004, 004.

The QA Inspector randomly observed ZPMC CWI Wu Ming Kai, and various CAWI Inspectors monitoring weld parameters.

The QA Inspector also randomly verified welding parameters during the welding being performed and they appeared to comply with the above listed Welding Procedure Specifications (WPS), and the contract requirements.

For more detail see photograph shown below:

Summary of Conversations:

As noted within the report shown above.

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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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By: Dixon,Roscoe

Quality Assurance Inspector

Reviewed By: Hager,Craig

QA Reviewer