

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-004742**Date Inspected:** 11-Nov-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Geng Wei, Zhang Bao Wei	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 Assembly	

Summary of Items Observed:

This report serves to document the events occurring on this date at the following location. Caltrans Quality Assurance (QA) Inspector Robert Vatcher 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 Assembly Bay II

5AE- QA spoke with AB/F representative Peter Shaw about deck panels DP324-1 & DP324-2. Mr. Shaw mentioned that DP324-1 had been rejected and DP324-2 was put in its place becoming essentially DP324-1 on 5AE

5BE- No Observed Welding Activity

5CE- No Observed Welding Activity

3AE- QA observed heat straightening to HSR1 (B)-3528 rev. 0 which states a maximum deformation of 4 millimeters at deck panels DP056-001 to DP055-001. As well heat straightening has been performed on deck panels DP0063-001 & DP064-001.

3BE- QA observed that welding/ joining has already commenced at deck panels DP061-001 & DP019-001. Surveying and dimensional verification being performed by ZPMC personnel at this time. QA spoke with AB F

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representative Wang Heng concerning the welding schedule and he mentioned that only heat straightening would be performed today. QA requested that METS be informed prior to any deck panel joining whether it is tacking or otherwise.

4AE- No Observed Welding Activity

4BE- No Observed Welding Activity

Mid bay-

QA observed the in process joining of deck panels DP324-002 to DP297-001 by the SAW process. QA measured welding parameters in accordance with welding procedure specification WPS-B-T-2221-B-L2C-S-2 utilizing non corroded or detritus bearing 4.0 mm diameter H14 electrode wire by qualified welding operator Wang Min 048296. Measured amperage at 600.0. Voltage at 33.0, travel speed at 430 mm per minute. QA performed a cursory visual examination of the back gouged root area prior to further depositing of weld metal. ZPMC QC personnel Wang Jie was present for this welding evolution.

5CW- QA observed for this operation the FCAW process utilizing 1.4 mm diameter Supercored 71H E71T-1 electrode wire in DCEP mode. Welder He Junrong 201215, a qualified welding operator was observed as well utilizing a stringer bead method for this evolution in the middle fill passes per the welding procedure specification WPS-B-T-2231-TC-U4b-FCM. QA measured amperage to be 290 (average), voltage at 29.0 and a travel speed of approximately 285 mm per minute at longitudinal diaphragm LD001-005 weld 003.

5BW- QA observed FCAW operation at longitudinal diaphragm LD0034-010 number 004 by qualified welding operator Li Xianyou 047866 in the 1G flat position. QA observed weld widths larger than 16 millimeters at the top weld layers. QA spoke with ZPMC QC personnel Zheng Bao Lei and apprised him of the AWS D1.5 (2002) requirements for splitting layers of weld metal in the flat position.

5AW- No Observed Welding Activity

4BW- No Observed Welding Activity

4AW- No Observed Welding Activity

3BW- No Observed Welding Activity

3AW- No Observed Welding Activity

Summary of Conversations:

No relevant conversations this date.

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 Peter Dauterman, who represents the Office of Structural Materials for your project.

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Inspected By:	Vatcher,Robert	Quality Assurance Inspector
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Reviewed By:	Cuellar,Robert	QA Reviewer
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