DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-015828
Date Inspected: 24-Jul-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 1900
OSM Departure Time: 700
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. Liu Hua Jie

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. This QA Inspector observed the following:

OBG Segment Trial Assembly

This QA Inspector observed ZPMC welder Mr. Chen Zheng Hua, stencil 220067 was using shielded metal arc procedure WPS-345-SMAW-4G(4F)-FCM-Repair-1 to make base metal repair welds of OBG segment 9DW side plates where temporary alignment plate welds had been removed. This QA Inspector observed the welding electrodes were being stored in a portable rod oven which was connected to an electric power cable. This QA Inspector measured a welding current of approximately 170 amps, the base material was preheated with a torch and Mr. Chen Zheng Hua appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhou Pan, stencil 220063 was using flux cored welding procedure WPS-B-T-2232-TC-U4b-F to make OBG segment weld SEG056B-006. This weld joins a longitudinal diaphragm to a floor beam at OBG segment 9DE panel point PP87. This QA Inspector measured a welding current of approximately 260 amps, 30 volts, the base material appeared to have been preheated with a torch and Mr. Zhou

Pan appeared to be certified to make this weld. This QA Inspector observed ZPMC workers did not appear to have removed base material paint from one of the temporary welds that secure this longitudinal diaphragm to OBG segment 9DW. This QA Inspector informed ZPMC CWI Mr. Liu Hua Jie that the paint had not been removed. See the photograph below for additional information. Items observed on this date do not fully appeared to comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Jian Zhou, stencil 067571 was using shielded metal arc welding process to tack weld a temporary alignment plate adjacent to OGB segment 9CW bottom plate as authorized by critical weld repair document CWR-1728. This QA Inspector measured a welding current of approximately 170 amps, the base material adjacent to this weld was preheated with a torch and Mr. Zang Yanbo appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder stencil 053468 was using flux cored welding procedure WPS-345-FCAW-3G(3F)-Repair-1 to make OBG segment 9CW weld OBW9A-004. This longitudinal diaphragm had been identified as having excessive misalignment and weld repair document B-WR14090 was issued to remove, straighten and reinstall this longitudinal diaphragm. This QA Inspector measured a welding current of approximately 210 amps and 25 volts. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Yu Hui Ye, stencil 045143 was using flux cored welding process to make OBG segment 9AW temporary alignment plate weld where the longitudinal diaphragm had been misaligned, reference weld repair document WR1722. This QA Inspector measured a welding current of approximately 230 amps and 30 volts. This QA Inspector observed that Mr. Yu Hui Ye appears to be certified to make this weld and the base material was preheated with a torch prior to welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhang Han Ming, stencil 220066 was using flux cored welding procedure WPS-B-T-2231-TC-U4c-F to make OBG bikepath cantilever beam weld BK001-PP81-005 and -007. This QA Inspector observed the base material was preheated with a torch prior to welding and Mr. Zhang Han Ming appeared to be certified to make these welds. This QA Inspector observed a welding current of approximately 240 amps and 27.0 volts. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Yanwu, stencil 218712 was using shielded metal arc process to perform tack welding of temporary alignment plates to OBG segment 9DW edge plate to allow alignment of OBG 9CW and 9DW weld joint on the counterweight side near panel point PP79. This QA Inspector observed Mr. Wang Yanwu appears to be certified to make these welds and a torch had been used to preheat the base material prior to welding. Items observed on this date appeared to comply with applicable contract documents.

WELDING INSPECTION REPORT

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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.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer