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: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-017646
Date Inspected: 28-Oct-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 Inspectors: ZPMC: Mr. Lv Li Qing , Mr. Gen Wei

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 Bay 14

This QA Inspector observed ZPMC welder Mr. Bian Henggui stencil 051359 used shielded metal arc welding process to make OBG segment 13BE tack welds between stiffener plate RS3077A to the bottom plate. This QA Inspector observed this plate is shown on drawing SEG3007AC and that this drawing does not list the weld number for this weld joint. This QA Inspector measured a welding current of approximately 170 amps and Mr. Bian Henggui appeared to be certified to make this weld, the base material was preheated with a torch and the welding electrodes were stored in a portable rod oven which was warm to the touch. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Jinjiu stencil 043661 used shielded metal arc procedure WPS-B-P-2213U4B-FCM-1 to make OBG segment 13BE weld SEG3007H-136. This weld joins a side plate stiffener to a floor beam. This QA Inspector observed Mr. Wang Jinjiu has a welding current of approximately 160 amps and the base materials appeared to have been preheated with a torch prior to commencement of welding.

This QA Inspector observed the shielded metal arc welding electrodes were stored in an electrically heated electrode storage container and it appeared to be connected to the welding power supply cable. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhang Quin Quan, stencil 044774 used flux cored welding procedure WPS-B-T-2133 to make OBG segment 13BE weld SEG3009H-157. This weld joins a stiffener plate to a floor beam. This QA Inspector observed ZPMC QC Inspector Mr. Guo Wei did not appear to have recorded any welding parameters for this welder. This QA Inspector observed that Mr. Zhang Quin Quan 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. Mao Li Wei, stencil 045213 used shielded metal arc process to tack weld SEG3020AP-001. This weld joins OBG segment 14W west cable anchorage bearing plates AP3022A to AP3021A. This QA Inspector observed a welding current of approximately 170 amps, the base materials were preheated with a torch prior to welding and the shielded metal arc welding electrodes were stored in an electrically heated electrode storage container which was warm to the touch. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Lv Feng Bao, stencil 045175 used flux cored welding procedure WPS-B-T-2133 to make OBG segment 13CW weld SEG3015C-019. This weld joins floor beam FB3234-001 to longitudinal diaphragm LD3033 near panel point PP124.5. This QA Inspector measured a welding current of approximately 240 amps and 29.0 volts. Mr. Lv Feng Bao appeared to be certified to make this weld and the base materials were preheated with an acetylene torch prior to welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. He Hande, stencil 047858 used flux cored welding procedure WPS-B-T-2133 to make OBG segment 13CW weld SEG3015F-036. This weld joins floor beam FB3228-001 to longitudinal diaphragm LD3036 near panel point PP123.5. This QA Inspector measured a welding current of approximately 245 amps and 29.0 volts. Mr. He Hande appeared to be certified to make this weld and the base materials were preheated with an acetylene torch prior to welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. He Han Qiang, stencil 201981 used flux cored welding procedure WPS-B-T-2133 to make OBG segment 13CW weld SEG3015K-034. This weld joins floor beam FB3221-001 to longitudinal diaphragm LD3036 near panel point PP122.5. This QA Inspector measured a welding current of approximately 230 amps and 27.5 volts. Mr. He Han Qiang appeared to be certified to make this weld and the base materials were preheated with an acetylene torch prior to welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Li Jun, stencil 051348 used shielded metal arc welding procedure WPS-B-P-2113-FCM-1 to make OBG segment 13CW weld SEG3015H-026. This weld joins floor beam FB3224-001 to longitudinal diaphragm LD3036 near panel point PP123.0. This QA Inspector observed ZPMC QC has recorded a welding current of 157 amps. Mr. Li Jun appeared to be certified to make this weld and the base materials appeared to have been preheated with an acetylene torch prior to welding. Items observed on this

date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Tian Zhaoquan, stencil 045246 used shielded metal arc welding procedure WPS-B-P-2113-FCM-1 to make OBG segment 13CW weld SEG3015D-022. This weld joins floor beam FB3231-001 to longitudinal diaphragm LD3036 near panel point PP124.0. This QA Inspector measured a welding current of approximately 160 amps. Mr. Tian Zhaoquan appeared to be certified to make this weld and the base materials appeared to have been preheated with an acetylene torch prior to welding. Items observed on this date appeared to generally comply with applicable contract documents.

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