

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-016131**Date Inspected:** 04-Aug-2010**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. 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

ZPMC CWI Mr. Liu Hua Jie informed this QA Inspector that ZPMC is going to perform radiography (RT) inspections of 9DW and 10AW welds from 22:00 to 02:00 hours then move to the East OBG segments where they are going to perform RT from 03:00 hours to 07:00 hours.

ABF issued "Inspection Notification Sheet" number 08042010-2 item #2 informing QA that on 08-04-2010 at 1900 hours ABF Inspectors would perform ultrasonic (UT) inspections of repaired hold back weld CA064-005. This weld was located between the edge plate and side plate on OBG segment 9CE in the trial assembly area. ABF/Sense UT Inspectors informed this QA Inspector that ABF Inspectors had completed UT inspections and this weld repair area was accepted. This QA Inspector performed random visual and ultrasonic inspections utilizing scanning patterns A, B, C and D (AWS D1.5 Fig 6.7) and the areas that were randomly inspected appear to comply with project specifications. Note: These inspections were documented and tracked on "Verification Witness Request" documents. See the TL-6027 UT report for additional information concerning this inspection.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

This QA Inspector observed ZPMC welder Mr. Gong Rui Qiang stencil 218707 used shielded metal arc welding process to perform tack welding of temporary plates to use for alignment of OBG cross side plate butt weld joint between segments 9DW and 9EW. This QA Inspector observed Mr. Gong Rui Qiang appeared to be certified to make these welds and a torch was used to preheat the base material prior to welding. Items observed on this date appeared to comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Guo Xing Chen stencil 208752 used shielded metal arc welding process to perform tack welding of temporary plates to use for maintaining alignment of OBG cross beam edge plate butt weld joint between segments 9EW and 10A. This QA Inspector observed Mr. Guo Xing Chen appeared to be certified to make these welds and a torch was used to preheat the base material prior to welding. Items observed on this date appeared to comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Chen Rui stencil 041713 used shielded metal arc welding procedure specification WPS-B-P-2214-TC-U4b-FCM-1 to complete weld CA062-002. This weld is located in OBG segment 9C cross beam side near panel point PP79. This QA Inspector observed a welding current of 170 amps and the base material had been preheated with a torch. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Hu Den Jiang, stencil 067877 used flux cored welding procedure WPS-B-T-2233-TC-U4b-F to make OBG segment weld SEG051C-043. This weld joins a longitudinal diaphragm to a floor beam at OBG segment 9BW panel point PP76. This QA Inspector measured a welding current of approximately 230 amps, 25.0 volts, the base material appeared to have been preheated with a torch and Mr. Hu Den Jiang 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. Hao Jianxiang stencil 067665 used shielded metal arc welding procedure specification WPS-B-P-2114-FCM-1 to perform weld FB027-011-016. This weld is located inside OBG cross beam CB11. This QA Inspector observed ZPMC QC Inspector Mr. Zhu Yuan Yuan recorded a welding current of 152 amps. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Ni Leijiang stencil 037723 used shielded metal arc welding procedure specification WPS-B-P-2112-FCM-1 to perform weld SP204-011-024. This weld is located inside OBG cross beam CB11. This QA Inspector observed ZPMC QC Inspector Mr. Zhu Yuan Yuan recorded a welding current of 147 amps. 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 used flux cored welding procedure specification WPS-B-T-2132 to perform weld CB202A-001-012. This weld is located inside OBG cross beam CB11. This QA Inspector observed ZPMC QC Inspector Mr. Zhu Yuan Yuan recorded a welding current of 305 amps and 30.2 volts. Items observed on this date appeared to generally comply with applicable contract documents.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

This QA Inspector observed ZPMC welder Mr. Bi Laishu, stencil 045280 is using flux cored welding procedure WPS-B-T-2231T-1 to make OBG segment 9BW weld OBW9K-003. This QA Inspector observed ZPMC CWI Mr. Liu Hua Jie recorded a welding current of 240 amps and 28.0 volts. This QA Inspector observed that Mr. Bi Laishu 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

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
