

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-015420**Date Inspected:** 26-Jun-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. Wu Zhi Cheng

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. Niu Duojun, stencil 037932 was using shielded metal arc procedure WPS-345-SMAW-3G(3F)-Repair-1 to make repairs of magnetic particle and visual rejections of OBG segment 8AW weld SSD25-PP063-006 near where OBG cross beam CB9 will be attached. This QA Inspector measured a welding current of approximately 175 amps. This QA Inspector observed the base material was preheated with a torch prior to welding and Mr. Niu Duojun appeared to be certified to make this weld. When this QA Inspector arrived in the area where this welding was taking place, Mr. Niu Duojun appeared to have no light or other way to illuminate the area where he is welding. This QA Inspector informed ZPMC CWI Mr. Wu Zhi Cheng that Mr. Niu Duojun had no light to illuminate the area he is welding. CWI Mr. Wu Zhi Cheng informed this QA Inspector that there had previously been a large light shining on the area where Mr. Niu Duojun had been welding and the light had recently become unplugged. Mr. Niu Duojun obtained an electric light which he used to illuminate the area where he was welding. Items observed on this date appeared to generally comply with applicable contract documents.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

This QA Inspector observed ZPMC welder Mr. Peng Jian Cheng, stencil 222396 was using flux cored welding procedure WPS-B-T-2233-T to make weld OBE9B-009. This weld joins OBG segment 9BE and segment 9CE bikepath side plates near panel point PP76. This QA Inspector observed the base material appeared to have been preheated with an electric heater torch prior to welding and observed a welding current of approximately 230 amps and 27.0 volts. This QA Inspector observed that Mr. Peng Jian Cheng 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 has used flux cored welding procedure WPS-B-T-2233T to make weld OBE9B-007. This butt weld joins the cross beam side plates between OBG segments 9BE and 9CE near panel point PP76. This QA Inspector observed ZPMC QC has recorded a welding current of 230 amps and 26.0 volts. The base material appears to have been preheated with electric heating elements and Mr. Zhou Pan 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. Wang Zhong Hua, stencil 053753 has used shielded metal arc procedure WPS-B-T-3213-B-U3b to make stiffener plate splice welds DP711-001-019 and -020 at the joint between OBG Segments 9BE and 9CE. This QA Inspector observed ZPMC QC has recorded a welding current of 150 amps and Mr. Wang Zhong Hua appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

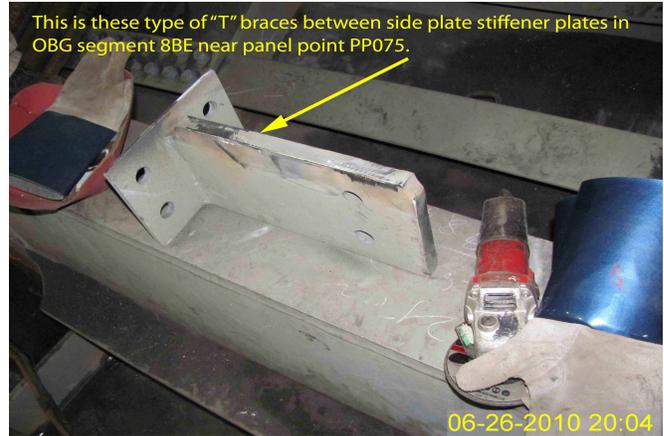
This QA Inspector observed ZPMC welder Mr. Dou Denang, stencil 048800 was using shielded metal arc process to make various tack welds to install temporary "T" braces between various OBG segment 8BE side plate stiffener plates near panel point PP075. These temporary braces are being installed to brace OBG segment 8BE in order to support loading of another OBG segment on the top of segment 8BE when it is loaded onto a ship for transport to the USA. This QA Inspector observed ZPMC has a torch to preheat the base material prior to welding and Mr. Dou Denang appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents. See the photograph below for additional information.

This QA Inspector observed ZPMC welder Mr. Wie Xianqi, stencil 054015 was using shielded metal arc process to make various tack welds to install temporary "T" braces between various OBG segment 7DW counterweight side plate stiffener plates near panel point PP058. These temporary braces are being installed to brace OBG segment 7DW in order to support loading of another OBG segment on the top of segment 7DW when it is loaded onto a ship for transport to the USA. This QA Inspector observed ZPMC has a torch to preheat the base material prior to welding and Mr. Wie Xianqi appears 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 Ms. Xu Fuqin, stencil 215326 was using shielded metal arc process to make various tack welds to install temporary "T" braces between various OBG segment 7CW cross beam side plate stiffener plates near panel point PP052. These temporary braces are being installed to brace OBG segment 7CW in order to support loading of another OBG segment on the top of segment 7CW when it is loaded onto a ship for transport to the USA. This QA Inspector observed ZPMC has a torch to preheat the base material prior to welding and Ms. Xu Fuqin appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)



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
