

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-012598**Date Inspected:** 09-Mar-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 and Tower**Summary of Items Observed:**

CWI Inspector: Mr. Gong Liang Zhu

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:

Tower Bay 11

This QA Inspector observed ZPMC welder Ms. Xu Yiping, stencil 040655 is using welding procedure specification WPS-B-T-3212-TC-U5b-1 to make shielded metal arc weld WSD1-TL5-4B/F-12A between tower lift 5 skin plate A and skin plate E inside surfaces. This QA Inspector observed that the base material is being heated with an electric heater and ZPMC QC personnel are monitoring the base material temperatures. This QA Inspector measured a welding current of approximately 260 amps and the welding electrodes are being stored in a heated container. This QA Inspector observed Ms. Xu Yiping appears to be certified to make this weld. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

This QA Inspector observed ZPMC welder Mr. Chen Shang Chun, stencil 046704 is using welding procedure specification WPS-B-T-3212-TC-U5b-1 to make shielded metal arc weld WSD1-TL5-4B/F-33A between tower lift 5 skin plate A and skin plate E inside surfaces. This QA Inspector observed that the base material is being heated with an electric heater and ZPMC QC personnel are monitoring the base material temperatures. This QA

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Inspector measured a welding current of approximately 260 amps and the welding electrodes are being stored in a heated container. This QA Inspector observed Mr. Chen Shang Chun appears to be certified to make this weld. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

This QA Inspector observed ZPMC welder Mr. Cui Guozhong, stencil 040656 is using welding procedure specification WPS-B-T-3212-TC-U5b-1 to make shielded metal arc weld WSD1-TL5-4B/F-33A between tower lift 5 skin plate A and skin plate E inside surfaces. This QA Inspector observed that the base material is being heated with an electric heater and ZPMC QC personnel are monitoring the base material temperatures. This QA Inspector measured a welding current of approximately 270 amps and the welding electrodes are being stored in a heated container. This QA Inspector observed Mr. Cui Guozhong appears to be certified to make this weld. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

This QA Inspector observed ZPMC welder Mr. Hu Xing Ping, stencil 049099, is using welding procedure specification WPS-B-T-3212-TC-U4b-1 to make shielded metal arc weld WSD1-TL5-4B/F-39A between tower lift 5 skin plate B and skin plate C inside surfaces. This QA Inspector observed that the base material is being heated with an electric heater and ZPMC QC personnel are monitoring the base material temperatures. This QA Inspector observed Mr. Hu Xing Ping was not welding due to the need to preheat the base material temperature and ZPMC QC has recorded a welding current of 262 amps and the welding electrodes are being stored in a heated container. This QA Inspector observed Mr. Hu Xing Ping appears to be certified to make this weld. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

This QA Inspector observed ZPMC welder Mr. Yang Lei, stencil 040690 is using welding procedure specification WPS-B-T-3212-TC-U4b-1 to make shielded metal arc weld WSD1-TL5-4B/F-39A between tower lift 5 skin plate B and skin plate C inside surfaces. This QA Inspector observed that the base material is being heated with an electric heater and ZPMC QC personnel are monitoring the base material temperatures. This QA Inspector observed Mr. Yang Lei was not welding due to the need to preheat the base material temperature and ZPMC QC has recorded a welding current of 258 amps and the welding electrodes are being stored in a heated container. This QA Inspector observed Mr. Yang Lei appears to be certified to make this weld. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

OBG Bay 13

This QA Inspector observed no ZPMC personnel were working on Caltrans OBG segments or tower assemblies in OBG Bays 13 and the majority of the overhead lights were turned off.

OBG Bay 14

As this QA Inspector walked toward the back of OBG Bay 14 ZPMC welder Mr. Jiang Shi Zhen, stencil 048694 appeared to be using the shielded metal arc welding process to tack weld various floor beams temporary stiffeners to counterweight side plates near panel point 115 in OBG segment 12CW. This QA Inspector observed many of the overhead lights where this welding was being performed were turned off and no ZPMC QC Inspectors appeared to be working in OBG Bay 14. This QA Inspector attempted to ask Mr. Jiang Shi Zhen and the other workers if any QC Inspectors were monitoring this welding and none of the workers appeared to speak the English language. Mr. Jiang Shi Zhen appeared as if he was completed welding. This QA Inspector observed Mr. Jiang

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Shi Zhen appears to be certified to make these welds. About 20 minutes later as this QA Inspector walked through the back of OBG Bay 14, this QA Inspector observed ZPMC welder Mr. Jiang Shi Zhen performing welding near the same location as listed above. This QA Inspector again asked Mr. Jiang Shi Zhen and the other welders if ZPMC QC Inspectors were monitoring this welding and Mr. Jiang Shi Zhen rolled up his welding lead and appeared to be removing his welding equipment from this location. Items observed on this date do not fully appear to comply with applicable contract documents. See the photographs below for additional information.

OBG BAY 15

This QA Inspector observed several ABF Inspectors appear to be performing magnetic particle inspections of hold back welds on cross beam CB6 and no personnel appear to be welding of any Caltrans materials.



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