

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-012139**Date Inspected:** 17-Feb-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. Li Yang

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 Bays 1 through 9

This QA Inspector observed no ZPMC personnel were working on Caltrans OBG segments or tower assemblies in OBG Bays 1 through 9.

OBG Bays 13 and 14

This QA Inspector observed no ZPMC personnel were working on Caltrans OBG segments or tower assemblies in OBG Bays 13 or 14 and the majority of the overhead lights were turned off.

Tower Bays 10 and 11

This QA Inspector observed no ZPMC personnel were working on Caltrans tower components in Bays 10 or 11.

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Heavy Dock Tower

This QA Inspector observed no ZPMC personnel were working on Caltrans tower assemblies at the heavy dock.

This QA Inspector observed ZPMC has positioned a floating 1500 ton capacity crane adjacent to this dock and it appears that ZPMC is possibly going to rig and lift South Tower Lift 2 in the near future.

OBG Trial Assembly

This QA Inspector observed ZPMC welder Mr. Hu Yanming, stencil 62092 is using shielded metal arc procedure WPS-345-SMAW-1G(1F)-FCM-Repair-1 to make a repair weld on a “T” stiffener to side plate on a “hold back” weld where a magnetic particle rejection had been removed. This weld is located on the 8th rib from the top corner assembly on the bikepath side of OBG segment 6AW between panel point 40 and 41. ZPMC CWI Mr. Li Yang informed this QA Inspector that he did not have the weld repair document were the weld was being made and he also did not know the weld number. This QA Inspector observed the welding electrodes are being stored in a portable rod oven that is connected to an electric power cable. This QA Inspector observed the base material was preheated with a torch and that ZPMC CWI Mr. Li Yang verified the base material had been preheated prior to commencement of welding. This QA Inspector measured a welding current of approximately 160 amps and Mr. Bu Ciqiang 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. Zhang Zhengjia, stencil 205769 is using shielded metal arc procedure WPS-B-P-2112-FCM-1 to tack weld an angle bracket to cross beam CB6 bottom plate adjacent to item X27D. This QA Inspector asked Mr. Zhang Zhengjia if he had a ZPMC issued welder identification card and Mr. Zhang Zhengjia indicated that he had left his welder identification card at home. This QA Inspector informed ZPMC CWI Mr. Li Yang that Mr. Zhang Zhengjia did not have a welder identification card and Mr. Li Yang informed this QA Inspector that Mr. Zhang Zhengjia will bring his welder identification card to work tomorrow. ZPMC CWI Mr. Li Yang informed this QA Inspector that he did not know the weld number and since this was a tack weld he is not documenting this welding on his daily report. This QA Inspector observed the welding electrodes are being stored in a portable rod oven that is connected to an electric power cable 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. See the photograph, below, for additional information.

This QA Inspector observed ZPMC welder Mr. Zhang Hanming, stencil 220066 has recently used flux cored welding procedure WPS-B-T-2231T-1 to make weld OBW6F-008 on segment 6BW. This QA Inspector observed ZPMC CWI Mr. Li Yang has recorded a welding current of 232 amps and 28.0 volts. This QA Inspector observed that Mr. Zhang Hanming 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 Mr. Wu Cun Xiung, stencil 070101 has recently used flux cored welding procedure WPS-B-T-2231T-1 to make weld OBW6F-010 on segment 6CW. This QA Inspector observed ZPMC CWI Mr. Li Yang has recorded a welding current of 238 amps and 28.0 volts. This QA Inspector observed that Mr. Wu Cun Xiung appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

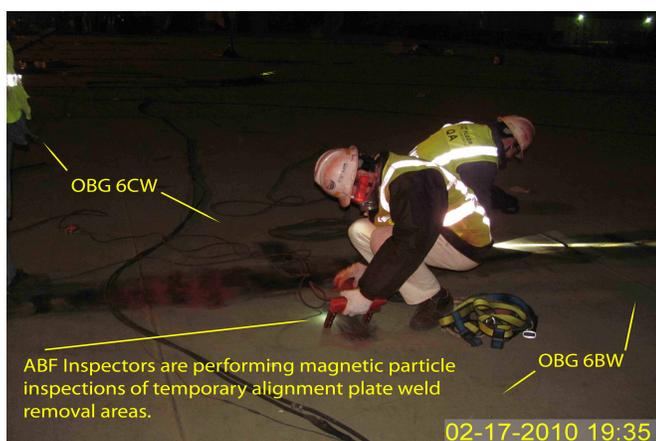
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This QA Inspector observed ABF personnel performing ultrasonic inspections of OBG segment 7AE bottom to side plate weld E3. ABF Inspectors marked approximately sixteen ultrasonic rejections in the two meter (approximate length) section of the weld that they inspected. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ABF personnel performing magnetic particle inspections of OBG segments 6AW and 6BW where temporary alignment plate welds had been removed. Items observed on this date appeared to generally comply with applicable contract documents. This QA Inspector observed ABF has located and marked a linear indication on the bikepath side corner assembly vertical weld #3 located at Y=803. See the photograph, below, for additional information.

Many of the ZPMC workers are not at work due to the Chinese New Year holiday.



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.

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