

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-010528**Date Inspected:** 20-Nov-2009**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 & Tower Fabrication**Summary of Items Observed:**

CWI Inspectors: Mr. Du Zhiqun, Mr. Guo Peng

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:

Assembly Yard

This Inspector performed random conventional Ultrasonic inspections (UT) after ABF UT personnel had performed similar UT inspections for detection of planar transverse indications utilizing scanning pattern A, B, C and D (AWS D1.5 Fig 6.7) of the following:

NDE request 11202009-1 item 1: OBG weld repair OBW3-003, segment 3AW to 3BW top plate repairs, three locations. ABF has identified rejectable transverse indications at location 4750 and 12865 and this QA Inspector did not observe any additional rejectable indications.

NDE request 11192009-2 item 1: OBG weld repair OBW2A-003 segment 2AW to 2BW side plate, counterweight side, eleven locations. ABF has identified rejectable transverse indications at location 5150 and 6795 and this QA Inspector did not observe any additional rejectable indications.

Blast Shop #1

WELDING INSPECTION REPORT

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This QA Inspector performed random visual inspections of the exterior surfaces of OBG Segment 7CE. ZPMC had recently completed grit blasted of the exterior surfaces and the steel surfaces are now mostly free of rust oxide and other contaminants that had previously obscured portions of the welds. This QA Inspector visually observed approximately 50 locations that require grinding or welding to resolve visual weld spatter, arc strikes, shallow nicks and other minor surface rejections. The areas were marked with colored chalk and ZPMC has several workers using grinders to remove the visually unacceptable areas and ZPMC has assigned a magnetic particle (MT) inspector to perform MT of the arc strike removal areas.

Tower Bay 10

This QA Inspector observed ZPMC welder Mr. Xu Xiuping, stencil 057244 is using flux cored welding procedure WPS-B-T-4332-TC-P5-F to make weld SSSL4-1C/L-142 between south tower lift 4 elevation 119 meters diaphragm and skin plate C. This QA Inspector observed a welding current of approximately 300 amps and 31.1 volts. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Ms. Dong Yuqin, stencil 053116 is using flux cored welding procedure WPS-B-T-4332-TC-P5-F to make weld SSSL4-1C/L-143 between south tower lift 4 elevation 119 meters diaphragm and skin plate C. This QA Inspector observed a welding current of approximately 300 amps and 29.6 volts. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Gungzhi, stencil 050041 is using flux cored welding procedure WPS-B-T-4332-TC-P5-F to make weld NSTL4-3I/L-126 between north tower lift 4 diaphragm and skin plates. This QA Inspector observed a welding current of approximately 320 amps and 31.7 volts. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Ms. Dong Yumei stencil 054069, is using flux cored welding procedure WPS-B-T-4332-TC-P5-F to make weld NSTL4-3I/L-128 between north tower lift 4 diaphragm and skin plates. This QA Inspector observed a welding current of approximately 320 amps and 31.7 volts. 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
