

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-004202**Date Inspected:** 05-Oct-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Zhang Bao**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 Assembly**Summary of Items Observed:**

This report serves to document the events occurring on this date at the following location. Caltrans Quality Assurance (QA) Inspector Robert Vatcher 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. The QA Inspector observed the following:

OBG Assembly Bay II

3AE- back gouging of SSD15-PP019 weld 131. Welding being performed at SSD15-PP019 weld 130 by FCAW process. QA performed a final visual on this joint as the final passes were completed. QA measured the width as well and determined to be 25.4 mm or less not requiring the contractor to split the weld layers. Appears to conform with the contract documents.

Mid bay- deck panel to deck panel joining at base plate by SAW process of DP432-001 & DP405-001. Final passes being made to WPS-B-T-2221-13-L25-S-2 and the reinforcement along with a partial final visual performed by QA appears to conform with the contract documents.

QA observed that multiple locations where deck panel crack repairs in the U rib to deck panel joints were occurring.

NPI of Oregon continues to evaluate U rib crack indications.

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Initial joining of deck panels DP488-001 to DP326-002 being conducted.

No diaphragm plate to deck to deck panel U rib repairs or initial joining being performed at this time. Only grinding of joint preparation where back gouging for complete joint penetration has occurred.

North Bay of OBG Assembly-

Initial joining of super deck panels DP108A TO DP135A by qualified welding operator He Junrong by the FCAW process.

North OBG Sub-Assembly outside Yard

QA was tasked with performing welding operation monitoring at locations where deck panel plates are being joined to deck panels specifically DP391-001 for initial deck panel production in the complete joint penetration location. QA observed for this operation the FCAW process utilizing 1.4 mm diameter Supercored 71H E71T-1 electrode wire in DCEP mode. Welder jiang Tingguang 062265, a qualified welding operator was observed as well utilizing a narrow stringer bead method for this evolution in the root pass per the welding procedure specification WPS-B-T-2231-B-U2-F. QA measured amperage to be 302 (average), voltage at 29.8 to 30.1 and a travel speed of approximately 315 mm per minute however utilizing a narrow weave bead method which is outside of the WPS allowable parameters. As well the above mentioned amperage is above the required parameter per the WPS. ZPMC QC personnel for this evolution who did not discover this issue before QA is Zhao Cheng Jian. This issue was brought to the attention of AB/F QC representative Man-Kit Li and ZPMC QC Zhang Bao who decided that ZPMC would generate an internal Non Conformance Report (NCR) for this situation.

The above mentioned items as observed, corrected by contractor QC & documented by QA appear to conform to the contract documents.

Summary of Conversations:

No relevant conversations this date.

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 Ady Velasco 138-1694-2685, who represents the Office of Structural Materials for your project.

Inspected By:	Vatcher,Robert	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
