

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-006838**Date Inspected:** 25-May-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Wu Zhi Cheng**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:** Superstructure trial assembly**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG superstructure trial assembly east line

During random in process visual inspection of OBG segment 2AE, this QA observed 6 cracked tack welds. The tack welds in question are joining the longitudinal diaphragm to the bottom panel near panel point 8.5 at E3. The longitudinal diaphragm is identified as LD26A and the bottom panel is identified as BP312A. This is non compliant to AWS D1.5 2002 section 3, paragraph 3.3.7.1 which states "tack welds shall be subject to the same quality requirements as the finished welds" and 6.26.1.1 which states "The weld shall have no cracks". (See attached photos).

This QA observed cope holes in floorbeams FB66A, FB72A, FB88A and FB89A that do not appear to comply with the contract documents. These cope holes are located on OBG segment 2AE at or near the intersection of panel point 8.5 and E4 and at the intersection of panel point 9 and E3 where the floorbeam web is welded to the side and bottom panels. They appear to be non compliant to shop detail drawing numbers FB66, FB72, FB88 and FB89 which specify that the cope holes are to have a 25mm radius. AWS D1.5 2002 section 3.2.5 states "Radii of beam copes and weld access holes shall provide a smooth transition, free of notches or cutting past the points of tangency between adjacent surfaces". (See attached photos).

This QA informed ZPMC QA identified as Mr. Wang Lu and ABF fabrication supervisor identified as Mr.

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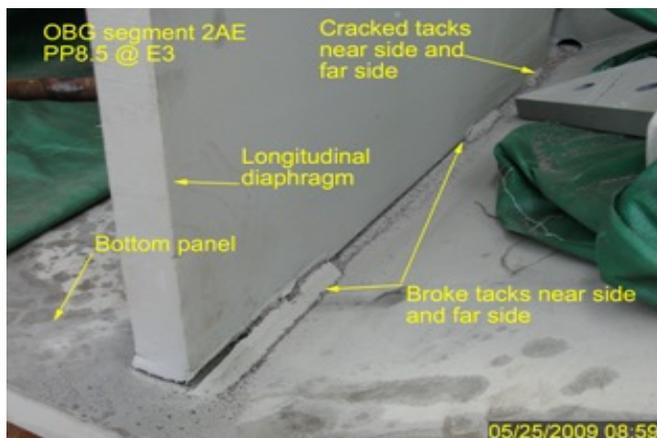
Peter Ferguson of the above mentioned issues and informed both that an incident report would be generated.

OBG superstructure trial assembly west line

This QA observed ZPMC qualified welding personnel identified as 202841 perform FCAW welding on weld joints identified as SP646-001-052~061 and SP647-001-011~020 at the splice joint between OBG segment 2AW/2BW. ZPMC QC identified as Mr. Liu Wei was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2132.

This QA observed ZPMC qualified welding personnel identified as 048467 perform SMAW welding on weld joints identified as DP723-001-023~025 at the splice joint between OBG segment 2AW/2BW. ZPMC QC identified as Mr. Liu Wei was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-3213-B-U3b.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



Summary of Conversations:

As mentioned above.

Comments

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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 (15000422372), who represents the Office of Structural Materials for your project.

Inspected By:	Hall,Steven	Quality Assurance Inspector
Reviewed By:	Prue,Erik	QA Reviewer
