

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-007275**Date Inspected:** 08-Jun-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:** Chen Chih Chien**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:** crossbeams and segment 5AE**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 cross beam CB5

This QA received ZPMC Non Destructive Testing (NDT) notification No. 003349 and performed Magnetic particle Testing (MT) of approximately 15% of the welds previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated an MT report for this date. The weld designations are as follows: CB202B-001-003, CB202C-001-003, CB202A-001-005 and CB202A-001-017.

Prior to MT of weld CB202C-001-003 This QA observed that the contractors Magnetic particle Testing (MT) technicians had MT'ed and accepted the weld without properly cleaning the weld prior to MT inspection. The weld in question was coated with Ultrasonic couplant residue. See attached photos. AWS D1.5 2002 section 6.7.6.3 states "Prior to MT, the surface shall be examined, and any adjacent area within at least 25 mm [1 in.] of the surface to be tested, shall be dry and free of contaminants such as oil, grease, loose rust, loose sand, loose scale, lint, thick paint, welding flux, and weld spatter." This QA informed ZPMC QA identified as Mr. Wang Lu and ABF fabrication supervisor identified as Mr. Peter Ferguson that an incident report would be generated for this issue.

OBG cross beam CB5, CB6 and CB8

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This QA observed that the contractor is continuing to tack weld temporary fixtures to Seismic Performance Critical Material (SPCM) that is not shown on the shop drawings. This QA observed that the contractors welding personnel have temporarily tack welded stiffeners to the SPCM area of the side and intermediate panels on the above mentioned crossbeams. These stiffeners and tack welds are not specified on the shop drawings. See attached photo. This condition exists on both ends of the east, west and intermediate panels on CB5, CB6 and CB8. AWS D1.5 2002 section 12.13.1.1 states "All tack welds used in assembly shall be located within the joint unless otherwise approved by the engineer". Project special provisions section 10-1.59 "shop welding" paragraph D states "Welding of temporary fixtures shall be shown on the working drawings and shall conform to AWS D1.5". This QA informed ZPMC QA identified as Mr. Wang Lu and ABF fabrication supervisor identified as Mr. Peter Ferguson that an incident report would be generated for this issue.

OBG segment 5AE (Superstructure trial assembly)

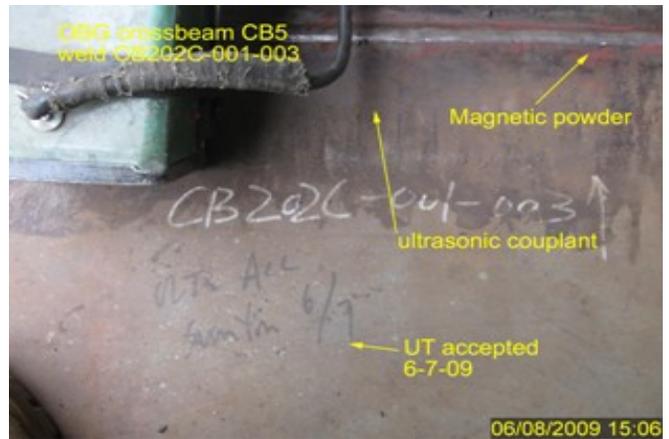
This QA observed cope holes in OBG segment floorbeams that do not appear to comply with the contract documents. These cope holes are located on OBG segment 5AE at or near the intersection of panel point 29 and E4 and at or near the intersection of panel point 29 and E3 where the floorbeam web is welded to the OBG side and bottom panels. (See attached photos for details). 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". This QA informed ZPMC QA identified as Mr. Wang Lu and ABF fabrication supervisor identified as Mr. Peter Ferguson that an incident report would be generated for this issue.

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



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Summary of Conversations:

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

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