

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-007274**Date Inspected:** 10-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:** Shi Lin**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:** 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 visual inspection of segment 4AE/4BE this QA observed the following: FL3 stiffeners PP026, 027 and 028; numerous notches in edges of stiffeners need to be addressed, FL3 area "bolt on" bottom panel @ PP028; large temporary tack needs to be removed and MT performed by the contractor, PP028 near partial height floorbeam diaphragm; base metal porosity at base metal or tack weld removal site, various locations; stiffener pass through slots improper radius, paint runs and sags and web splices on partial height diaphragms; cope holes improper radius. This QA previously compiled a list of most of the above mentioned items on 5/30/09 and submitted it to Caltrans QA task leaders and Caltrans Island Structural Materials Representative (ISMR). This QA noted that the contractor has blasted and painted the FL3 area prior to addressing and/or performing needed repairs. See attached photos.

OBG superstructure trial assembly west line

This QA observed ZPMC welding personnel stop and restart Shielded Metal Arc Weld (SMAW) pass without cleaning the "crater area" of the weld prior to resuming the welding process. This incident was observed on OBG

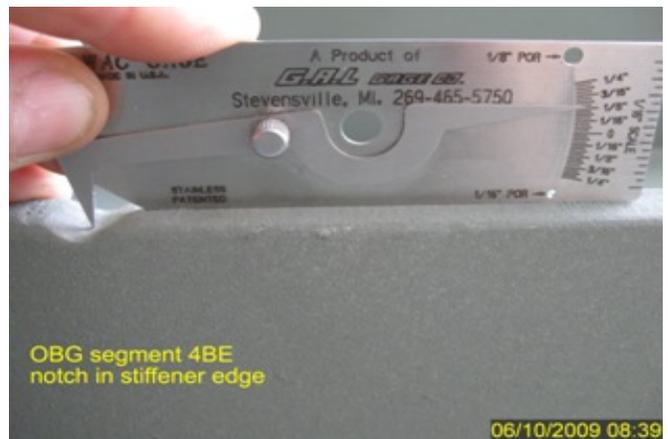
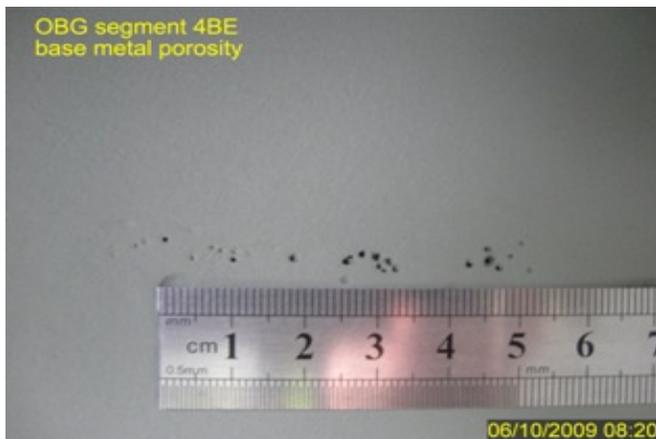
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superstructure trial assembly on weld joint identified as OBW5A-004 (5AW to 5BW side panel splice). A digital video clip of this incident can be viewed on the Caltrans server under [Team OBG // 5AW to 5BW weld videos //OBW5A_repair]. AWS D1.5 2002 section 3.11.1 states “Before welding over previously deposited metal, all slag shall be removed and adjacent base metal shall be brushed clean. This requirement shall apply not only to successive layers but also to successive beads and to the crater area when welding is resumed after any interruption.” This QA informed ZPMC QA identified as Mr. Wang Lu and ABF QA inspector identified as Mr. Kevin Chen that an incident report would be generated for this issue.

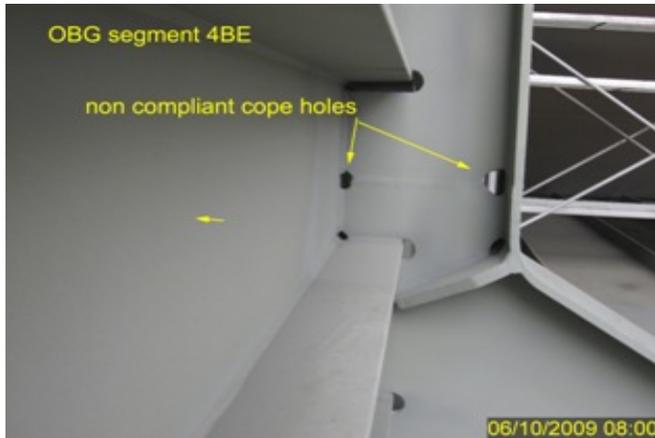
This QA observed the contractors welding personnel perform FCAW welding while the adjacent base metal material was wet. The weld joint is identified as CA016-006. A digital video clip of this incident can be viewed on the Caltrans server under [Team OBG // 5AW to 5BW weld videos //CA016-006_welding on wet material]. AWS D1.5 2002 section 3, paragraph 3.1.3 states “Welding shall not be done when the surfaces are wet or exposed to rain. AWS D1.5 2002 section 3, paragraph 3.2.1 states “Surfaces to be welded and surfaces adjacent to a weld shall also be free from moisture that would prevent proper welding. This QA informed ZPMC QA identified as Mr. Wang Lu and ABF QA inspector identified as Mr. Kevin Chen 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.

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