

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-005024**Date Inspected:** 12-Dec-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:** Geng Wei, Zhang Bao Wei**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

QA assisted AB /F representative Warren Buehler and ZPMC representative Shen Jun on the west segments, specifically 3BW- LD011-002 & 4BW LD003-008 & LD004-008 where remaining issues required closure. QA pointed out again that there were linear indications and flame cut notches requiring attention. These issues were reported to both AB/ F representative Kevin Dye and ZPMC representative Wang Lu previously. ZPMC immediately began to address the issues. QA observed Magnetic Particle (MT) performed by ZPMC QC personnel at 4BW LD004-008 after the indication was removed by grinding. QA will be green tagging these diaphragms in the near future after ZPMC finalizes these issues.

QA finished performing green tagging on the remaining longitudinal diaphragms that had signature discrepancies where the visual examination sign off was either illegible or was not on the component at all. QA signed the AB/ F green tag forms for these specific tags on this date respectively.

5AE- No Observed Welding Activity however QA observed multiple locations where grinding is occurring for breaking edges for paint.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

5BE- No Observed Welding Activity however QA observed multiple locations where grinding is occurring for breaking edges for paint.

5CE- No Observed Welding Activity however QA observed multiple locations where grinding is occurring for breaking edges for paint.

3AE- No Observed Welding Activity however QA observed multiple locations where grinding is occurring for breaking edges for paint.

3BE-

QA performed Welding procedure specification verification at SEG016*-016 deck panels DP63A & DP64A. QA observed for this operation the FCAW process utilizing 1.4 mm diameter Supercored 71H E71T-1 electrode wire in DCEP mode which was checked out of the station on 11/28/08 at 0700. Hong Yong Li 044801 the qualified welding operator was observed as well utilizing a stringer bead method for this evolution in the initial root pass per the welding procedure specification WPS-B-T-223(2)1T. QA measured in-process temperature to be approximately 90 degrees celsius average, amperage to be 285 (average), voltage at 29.0 and a travel speed of approximately 200 mm per minute. ZPMC QC personnel Chen Chih Ming was present to measure and record this operation.

4AE- No Observed Welding Activity however QA observed multiple locations where grinding is occurring for breaking edges for paint.

4BE- No Observed Welding Activity however QA observed multiple locations where grinding is occurring for breaking edges for paint.

Mid bay-

QA observed SAW process welding occurring at SEG030A-002 side plates SP308A to SP335A. QA spoke with Chen Chih Ming concerning the fact that the SAW process blew through the root pass of the joint being welded which left a 150 millimeter length of open root. The area has been ground to a level which ZPMC QC personnel Chen Chih Ming deemed weldable. As well Chen Chih Ming mentioned that the location will require generating a Weld Repair Report. ZPMC QC personnel Wang Jie mentioned that will occur immediately.

QA observed conventional ultrasonic testing (UT) by ZPMC QC personnel Tiang Xing Shan (qualified Level II ultrasonics technician) at SEG006A-008 side plates SP389 to SP390. QA observed that no shearwave transducer oscillation was occurring. QA brought this to the attention of the operator and observed the re-scanning of the affected locations.

5CW- No Observed Welding Activity however QA observed multiple locations where grinding is occurring for breaking edges for paint.

5BW- No Observed Welding Activity however QA observed multiple locations where grinding is occurring for

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

breaking edges for paint.

5AW- No Observed Welding Activity however QA observed multiple locations where grinding is occurring for breaking edges for paint.

4BW- No Observed Welding Activity however QA observed multiple locations where grinding is occurring for breaking edges for paint.

4AW-

Deck panels DP27A & DP65A, DP68A & DP67A complete joint penetration welds are completely filled out by the SAW process.

3BW- No Observed Welding Activity however QA observed multiple locations where grinding is occurring for breaking edges for paint.

3AW- No Observed Welding Activity however QA observed multiple locations where grinding is occurring for breaking edges for paint.

North Bay of OBG Assembly-

Side Plate to Side Plate back grinding in progress at SP124-001 to SP097-001. QA performed a cursory visual examination of the preparation to sound metal.

North Sub-Assembly Area (Outside of OBG)

Temporary work being performed at this location.

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 Peter Dautermann, who represents the Office of Structural Materials for your project.

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