

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-004203**Date Inspected:** 02-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

5CE- Welding being performed in repair area for LD016-015 weld number segment 026C-001 panel point 35. ZPMC QC personnel Zhang Xian Ji was available during the repair procedure utilizing a ZPMC Welding Repair Report. It appears that defects located by Ultrasonic Testing (UT) were the basis for said repair. QA observed that an AB/F green tag had been placed on the above, mentioned longitudinal diaphragm but was stated for Lift 5AE and not 5CE. QA spoke with Zhang Xian Ji about the ZPMC WRR and he mentioned that it was incorrect in that it directed out to utilize the SMAW process vice the FCAW process.

Mid bay- Backgouging of full penetration diaphragm plate to U rib welds being performed at DP060-001 weld 16.

QA observed during a second pass through of the mid bay location that diaphragm plate to deck panel U rib welding in the vertical position was being performed. QA queried ZPMC QC personnel Wang Jie as to what the measured travel speed were for deck panel welds DP041-001, DP042-002 & DP043-001. QA was told that travel speeds between 90.0 and 120 mm per minute were attained. QA asked why the welders were allowed to continue welding outside of the WPS parameters. No answer was given. QA further asked as to why the welders were no

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evaluated first in the morning on a piece of scrap metal, adjusted for proper speed, amperage & voltage and then allowed to continue on. ZPMC QC personnel Wang Jie, Chen Chih Meng & AB/F representative Li Hao proceeded to stop welding production, find a piece of scrap metal and adjust welding parameters for each welder accordingly. QA asked Chen Chih Meng if he would possibly have his leader distribute this issue as an Internal Warning Report for all AB/F and ZPMC QC personnel to read and understand. Chen Chih Meng mentioned that he would. QA also asked if this would be addressed in a ZPMC QC Non Conformance Report for the welds joined outside of the WPS requirements. Wang Lu concurred that this would be generated inside a ZPMC Non Conformance report.

4BW- side plate stiffener to side plate stiffener complete joint penetration welding being performed at SP049-001-037, 038, 039, 040, 041 & 042. QA examined joint preparation prior to welding which had 5.0 mm or less gap between the two stiffener plates.

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.

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