

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-001255**Date Inspected:** 14-Jan-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Zhang Zhong**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:** Tower mock ups and OBG components**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) inspector, Scott Croff, was present at Zhenhua Port Machinery Company, Ltd (ZPMC) to observe the scheduled mock up construction and production construction of the SAS Superstructure.

Bay 2: The QA inspector observed work in progress on the 77 meter mock up and noted that there appeared to be additional plates and welds than were on the approved drawings. The QA inspector showed the QA inspector Larry Viars and then asked ZPMC personnel if they were aware of what actual parts were being welded. The QA inspectors were informed that work was being done in conformance with an approved request for information (RFI) 269. The QA inspector reviewed the available documents and then verified that this RFI was approved.

The QA inspector observed submerged arc welding (SAW) being conducted on the outside corner of the skin plates D and E of the 77 meter mock up assembly. The QA inspector noted that the welding operator is Xue Yian. As the QA inspector was making these observations, the QA inspector was informed by ZPMC person Xu Le Feng that he was the CWI and was monitoring this welding. Upon review of the approved list of Quality Control (QC) personnel, the QA inspector could not identify Xu Le Feng as being an approved CWI. The QA inspector was directed to write an incident report of this observation.

Bay 7: The QA inspector made random observations of work in progress on floor beam diaphragm assemblies that will be used in the Orthotropic Box Girders (OBG). The QA inspector observed shielded metal arc welding (SMAW) being performed by Wang Li, Hu Yacheng and Sun LingLing. The QA inspector noted that ZPMC workers are fitting up parts and making fillet welds between various stiffeners on assemblies FB002-02, FB007-02,

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FB016-02 and FB016-03. As the QA inspector was making these observations, the QA inspector noted that the welding is being monitored by several ZPMC persons, Xu Tao and Wang Xiang Pin. The QA inspector inquired with these persons to determine if they were approved QC inspectors. At separate occasions, the QA inspector was informed by both of the ZPMC persons that they were not approved QC inspectors and that Zhang Zhong was the CWI monitoring the welding. The QA inspector made these observations for a period of more than 45 minutes and during that time, the CWI Zhang Zhong was not observed monitoring any of the welding. The QA inspector was directed to write an incident report of this observation.



Summary of Conversations:

As noted above, the QA inspector Scott Croff had conversations with the QA inspector Larry Viars and ZPMC QC personnel regarding the RFI that is being used on the 77 meter mock up. The QA inspectors were informed that the work was being done in conformance with RFI-000269R00.

As noted above, the QA inspector Scott Croff had several conversations with ZPMC personnel in Bay 2 and Bay 7.

The conversations were generally regarding the observed work in progress and are described above. Also as noted above, after 45 minutes in Bay 7, when the QA inspector did not observe an approved QC inspector monitor the observed any welding, the QA inspector asked the ZPMC workers where the CWI was. The QA inspector was informed that the CWI Zhang Zhong was "in the office."

The QA inspector Scott Croff had a conversation with the QA inspector Robert Cuellar. The QA inspector Scott Croff was informed that incident reports should be written for the apparently unapproved CWI monitoring welding on the 77 meter mock up assembly and the observed lack of continuous inspection of welding in Bay 7. The QA inspector then generated a summary report to be included in the daily shift log. There were no other notable conversations during this shift.

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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By: Croff, Scott

Quality Assurance Inspector

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Reviewed By: Cuellar,Robert

QA Reviewer