

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-001342**Date Inspected:** 28-Jan-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1600**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Xu Lefeng**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 up assemblies**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 fabrication of the SAS Superstructure.

Tower Shop: The QA inspector observed welding in progress on the 89 meter tower mock up assembly, on joint design MWT-91 between skin plates A & E. The QA inspector noted that submerged arc welding (SAW) is being performed by Wu Zhibin and the Quality Control (QC) inspector is Certified Welding Inspector (CWI) Xu Lefeng. At the time of the QA inspector's observations, the CWI was observed actively monitoring the welding process. Upon the QA inspector's arrival to the work area, the QA inspector noted that approximately 70% of the outside portion of the weld groove is filled. The QA inspector was informed that welding will continue into day shift, as this is the last step for welding this joint. The QA inspector made random measurements of the welding parameters of welding procedure specification (WPS) B-T-2221-C-U2b-S-1. The QA inspector used a temperature indicating crayon and observed that the base metal preheat appeared to be above 110°C. The QA inspector measured the travel speed to be approximately 550mm per minute. The welding current was observed at approximately 690 amperes and 33 volts. The QA inspector returned to the work area several times and made random measurements of the interpass temperature of the base and weld metal. The QA inspector noted that the interpass temperature was being monitored and the QA inspector did not observe any weld passes being started when the base and weld metal temperature exceeded 230°C. At the time of these observations, the welding observed by the QA inspector appeared to be generally conforming to the contract requirements.

Summary of Conversations:

The QA inspector Scott Croff had conversations with the QC inspector Ye Yong Jun. The QA inspector's conversations were generally regarding the observed welding that is described above. The QA inspector was

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informed of the work as it was progressing, the QA inspector verified the travel speeds that were being measured and recorded on the welding report form. 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
Reviewed By:	Cuellar,Robert	QA Reviewer
