

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-001329**Date Inspected:** 21-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:** Ye Yong Jun**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.

Tower Shop: The QA inspector observed work in progress on the 89 meter tower mock up assembly. The QA inspector observed that the outside corner of skin plates C to D, joint design MWT-93, was being prepared for welding. The QA inspector made observations of the prepared groove and the back gouged root area. The QA inspector noted that the back gouged area appeared to have been ground to bright, shiny metal and also appeared to be smooth and uniform across the length of the groove. The QA inspector made random measurements of the depth of the groove and the width of the groove. The depth was randomly observed to be 66mm to 68mm and the width was randomly observed to be 70mm. The QA inspector also noted that the preheat of the base metals appeared to be above 110°C. The QA inspector observed submerged arc welding (SAW) being performed on the outside corner of MWT-93. The QA inspector noted that the SAW is being conducted with 4.8mm diameter EM12K electrode. The QA inspector noted that the CWI Ye Yong Jun is the ZPMC Quality Control (QC) inspector monitoring this welding and at the time of the QA inspector's observations, the CWI was present. The QA inspector made random observations of the welding parameters at this location. The travel speed was measured at 465mm per minute and appeared to be within the ranges listed by welding procedure specification (WPS) B-T-2221-C-U2b-S-1. The QA inspector observed the welding current as it was displayed on the SAW machine gauges, the QA inspector also observed recordings from the QC inspector and compared them to the ranges listed in the approved WPS. At the time of the QA inspector's random observations, the welding appeared to be in general conformance with the contract documents.

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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 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
