

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-001114**Date Inspected:** 29-Nov-2007**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:** Lu Jian Ping**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**Summary of Items Observed:**

CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the fabrication scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

Item Description	WBS	Dwg No.	Status
1 UT verifications at ZPMC Tower Mock-up 89 M The QA Inspector performed 10 % ultrasonic testing (UT) evaluation from side A & B on the shear links at the junction of the plate mp1011 and p209; 1 flange weld joints 5-1 and 1 web at the junction of the plates MA25 and p215 weld joints # 15 for the subassembly MA25. The QA inspector discovered that the weld areas tested appeared to be in general compliance with AWS D1.5 2002. See UT report TL_6027 generated on this date. Tower Splice 114 M The QA Inspector performed 10 % UT evaluation from side A & B at the junction of the longitudinal stiffeners mp1011 and mp1008 to the skin A lower panel weld joints 4, 6, 16 and 18 for the subassembly MA21. The QA inspector discovered that the weld areas tested appeared to be in general compliance with AWS D1.5 2002. See UT report TL_6027 generated on this date.			
2 MT verifications at the Skin A Tower Mock-up 89 M The QA inspector performed 10 % magnetic particle testing (MT) at the skin A subassembly MA-22, on the root pass of the partial penetration (PJP) weld joints # 4, 6, 16 and 18. The QA inspector observed that the welds examined appeared to be in general compliance with the contract documents. See TL 6028 generated on this date.			

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3 Cross Bracing Welding Tower Mock-up 89 M

At the end of the shift, the QA inspector observed that the cross bracing MA-29 subassembly was tack welded. The QA inspector had a conversation with ZPMC representative Xu Jun. The QA inspector asked Mr. Xu Jun if the flux cored arc welding (FCAW) electrode used by ZPMC were in compliance with the Seismic Performance Critical Member (SPCM) requirements. Mr. Xu Jun relayed that the drawing given by ABF did not note the cross bracing as SPCM. Mr. Xu Jun questioned the CWI on site as to what electrode ZPMC was using. The CWI showed the QA inspector the spool of electrode E71T-1 /AWS A5.20, brand name Supercored that ZPMC was using. The QA inspector did not observe the time and date written on the outside of the spool. The QA inspector had a conversation with Caltrans Task leader Robert Cuellar. The QA inspector relayed to Mr. Robert Cuellar that it is questionable, as to whether or not ZPMC followed the SPCM requirements when the tack welding operations on the cross bracing occurred.

Note: Caltrans second shift was going to follow up on the welding consumable used for tack welding the SPCM cross bracing on this date.

Summary of Conversations:

As noted above.

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:	Acuna, Alfredo	Quality Assurance Inspector
Reviewed By:	Cuellar, Robert	QA Reviewer
