

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-023703**Date Inspected:** 13-May-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Steve Jensen**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**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and monitor American Bridge/Fluor (ABF) welding operations. This Quality Assurance (QA) Inspector, Craig Hager observed the following.

This QA Inspector observed the work in progress on the upper and lower Interior Corner Closure Splice Plates located at the B- C and C-D corners in the Tower sections and elevations noted below.

South Tower, elevation 51 meters: This QA Inspector observed ABF welding personnel Morgan Winters (#3305) performing production welding using the Shielded Metal Arc Welding (SMAW) process at the bottom fillet weld on the upper splice plate located at the C-D corner of the tower. This QA Inspector observed QC Inspector Steve Jensen verify the following parameters; 120 amperes using a 3.2 mm diameter E7018H4R electrode. The welding observed appeared to comply with ABF-WPS-D15-F1200A. Later this shift ABF welding personnel Morgan Winters was observed using the SMAW process to fill in various areas marked by QC Steve Jensen as under fill. This QA Inspector was informed by QC Inspector Steve Jensen that he had performed a preliminary visual inspection for weld size but still needed to mark areas for additional grinding.

West Tower, elevation 51 meters: This QA Inspector observed ABF welding personnel Salvador Sandoval (#2202) performing production welding using the Flux Cored Arc Welding (FCAW) process at the bottom half of the lower splice plate located at the C-D corner of the tower. This QA Inspector randomly observed QC Inspector Steve Jensen verify the following welding parameters; 256 amperes and 22 volts at a travel speed of 100 mm per

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minute to produce a heat input of 3.38 Kj per mm. After completing this section of weld on the splice plate the weld was covered with an induction heating blanket for post heating of 300°F for 3 hours. While the post heating was being performed FCAW proceeded on the bottom half of the upper splice plate at this location. The welding observed appeared to comply with ABF-WPS-D15-F2200-2. At the end of the shift this date the induction heat blanket was moved to cover the welding at this location and start the post heating.

North Tower, elevation 51 meters: This QA Inspector was informed by QC Inspector Steve Jensen that he had inspected and accepted the fit up of the upper and lower splice plates in both the B-C and C-D corners. This QA Inspector performed a random visual verification of the fit up and observed the root gap to be approximately 4 mm and less. The work observed appeared to comply with the contract requirements. After the fit up inspection this QA Inspector observed ABF welding personnel Rick Clayborn (#2773) using the FCAW process to start tack welding the splice plates at this location. This QA Inspector observed as QC Inspector Steve Jensen verified the following welding parameters; 270 amperes and 22 volts at a travel speed of 100 mm per minute to produce a heat input of 3.56 Kj per mm. The tack welding observed appeared to comply with ABF-WPS-D15-F2200-3.

Summary of Conversations:

This QA Inspector had general conversations with American Bridge/Fluor (ABF) and Caltrans personnel during this shift. Except as described above and noted below there were no notable conversations.

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 Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Hager,Craig	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
