

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-021510**Date Inspected:** 04-Mar-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1100**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Fred Von Hoff**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 Grillage**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 was on site between the times noted above.

South Tower leg:

This QA Inspector randomly observed the status of work as the following; Complete Joint Penetration (CJP) welds -welding in process, two appear to be completed. Partial Joint Penetration (PJP) welds – appear to be complete, except for cleaning, grinding and any pick up welding. Fillet welds – all have at least a single pass with approximately 50% with more than one pass.

ABF Welding personnel Richard Garcia (#5892), Salvador Sandoval (# 2202) and Jason Collins (# 8128) were performing SMAW on various CJP welds.

East Tower leg:

This QA Inspector randomly observed the status of work as the following; Complete Joint Penetration (CJP) welds –all appear to have approximately 3-5 mm thick root passes. Fillet welds – all have at least a single pass. Partial Joint Penetration (PJP) welds – welding in process approximately 20% complete.

ABF Welding personnel Rick Clayborne (#2733) and Gilbert Peralta (#9453) were performing SMAW on various PJP welds. This QA Inspector observed the electronic readings of the preheating equipment indicated the

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

temperatures were greater than the minimum preheat of 350°F. This QA Inspector used a temperature indicating marker to verify preheat temperatures at various locations inside the tower leg adjacent to where welding was being performed.

This QA Inspector was informed by QC Inspector Fred Von Hoff the welding parameters for the personnel noted above were within the required heat input range in the Welding Procedure Specifications (WPS) ABF-WPS-D15-1162-4 for the PJP welds, ABF-WPS-D15-1042A-4 for CJP welds and ABF-WPS-D15-F1206 for Fillet welds. Note the welding parameters are the same for all three procedures. This QA Inspector randomly observed the amperages and voltages of ABF welding personnel noted above and they appeared to within the ranges in the WPS. This QA Inspector observed that both 3.2 mm and 4.0 mm diameter E9018H4R electrodes were being used and stored in separate heated storage containers. This QA Inspector also observed the 1-hour exposure limit for the electrodes appeared to be monitored and adhered to.

The welding/work observed this date appeared to comply with the contract requirements.

This QA Inspector delivered High Strength Fasteners previously sampled this week at Pier # 7 in Oakland to the Translab in Sacramento, CA for QA verification testing.

This QA Inspector had previously received Weekly Welding Report submittal; ABF-Sub-001536 Rev-44. This QA Inspector performed a review of the documents to determine compliance with the Welding Quality Control Plan (WQCP) submitted by the contractor, compliance with the applicable contract requirements and to determine if any Quality Control (QC) documents were missing. This QA Inspector documented the findings on a weld specific tracking log and informed QA Inspector Bill Levell of the findings. This QA Inspector placed the reviewed documents in the applicable files.

Summary of Conversations:

This QA Inspector had general conversations with American Bridge/Fluor (ABF) and Caltrans personnel during this shift. Except as described above 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
