

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-019220**Date Inspected:** 06-Jan-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** See below**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:** SAS OBG**Summary of Items Observed:**

The Quality Assurance (QA) Inspector, Rick Bettencourt was on site at the job site between the times noted above. The QA Inspector was on site to randomly observe the in process welding and inspection of the weld joints identified as 8W-70.5-W5-S, 3W-pp20-W3-4, 2W-pp15-W4-3 and the following observations were made:

8W-pp70.5-W5-S

The QA Inspector randomly observed the American Bridge/Fluor (ABF) welder George Lopez setting up to continue performing the shielded metal arc welding (SMAW) back weld. The QA Inspector previously performed random visual testing and dimensional verification of the bevel angle and root opening of the above identified fit up. The QA Inspector randomly observed the fit up appeared to be in general compliance with ABF-WPS-D1. 5-1030. Upon the arrival of the QA inspector, it was noted the SMAW 4G back weld appeared to be approximately 60% complete. The QA Inspector randomly observed the SE QC Inspector Fred Vonhoff was on site monitoring the in process welding. The QA Inspector randomly observed the SMAW parameters were 120 Amps while utilizing 1/8" E7018 low hydrogen electrodes. The QA Inspector noted the SMAW parameters appeared to be in general compliance with the contract requirements.

3W-pp20-W3-4

The QA Inspector randomly observed the ABF welder identified as Darcel Jackson and ABF helper begin fitting up the lifting lug deck insert identified above. The QA Inspector noted the direction of rolling was stamped with a low stress stamp in the center of the insert plate, so no grinding or welding would mask or deface the identifying marking. The QA Inspector randomly observed the bevel angle to be 45°. The QA Inspector noted the surface of the bevel appeared to be a machined surface with bright shiny metal. The QA Inspector noted the ABF welder

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

was utilizing a prefabricated round copper backing plate with a channel machined in root opening where the welding will take place. The QA Inspector noted the fit up was completed on the QA Inspectors shift and appeared to be in general compliance with the contract documents. The QA Inspector randomly observed the ABF welder begin the SMAW root pass. The QA Inspector randomly observed the SMAW parameters were 5/32" E7018 low hydrogen electrodes with 176 Amps. The QA Inspector noted the parameters appeared to be in general compliance with ABF-WPS-1070A R1. The QA Inspector randomly observed the ABF welder did completed the above identified lifting lug hole on this date.

2W-pp15-W4-3

The QA Inspector randomly observed the ABF welder identified as Mike Jimenez continue welding the in process lift lug hole restoration. The QA Inspector noted the weld joint was approximately 50% complete at the time of the QA Inspectors arrival. The QA Inspector randomly observed the ABF welder continue the SMAW fill pass. The QA Inspector randomly observed the SMAW parameters were 5/32" E7018 low hydrogen electrodes with 176 Amps. The QA Inspector noted the parameters appeared to be in general compliance with ABF-WPS-1070A R1. The QA Inspector randomly observed the ABF welder did complete the above identified lifting lug hole on this date.

The QA Inspector spent the remainder of the shift updating QA NDT tracking as well as ABF production of transverse field splices, lifting lug deck restorations and access hole restorations. In addition the QA Inspector randomly observed the SE QC department has complied with the QA Inspectors request to update and utilize the NDT sign off charts directly on the steel adjacent to all field weld joints. The QA Inspector randomly observed the SE QC Inspectors updating and creating new charts where the previously did not exist.

2E/3E-A & 6E/7E-A

The QA Inspector observed the contractor had begun to make repairs to the "blow thru" areas of the steel backing under the top deck plate at the above identified locations. The QA Inspector randomly observed the contractor had performed grinding tasks in an attempt to remove the dross created by the SAW blow thru. The QA Inspector noted no Engineering Representative of the department was notified of such repairs as required in the approved RFI 002290 R00. The QA Inspector notified the contractor an incident report would be written and submitted for review for the above identified non conforming issue. Below pictures illustrate an area of 2E/3E-A where such repairs were attempted.



WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Summary of Conversations:

no pertinent conversation noted on this date.

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:	Bettencourt,Rick	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
