

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-019335**Date Inspected:** 11-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 1E/2E-A & 2E/3E-A, 4W-pp25-W3-3, 3W-pp22-W4-1 and the following observations were made:

1E/2E-A & 2E/3E-A

The QA Inspector was informed by the Lead QC Inspector Leonard Cross that ABF would like to begin repairing the "burn thru" at the steel backing at the above identified locations (see summary of conversations).

1E/2E-A

The QA Inspector randomly observed the SE QC Inspector Jesse Cayabyab performing grinding tasks of the "burn thru" areas at the above identified weld splice. The QA Inspector noted the ABF welder was utilizing a burr bit grinder with a 10" extension to enable the grinding bit to reach between the rib stiffeners under the top deck plate. The QA Inspector randomly observed the QC Inspector remove the burn thru at 3 locations Y=64cm, Y=126cm and Y=364cm. The QA Inspector noted the burn thru or dross was removed by grinding with a Christmas tree shaped grinding bit to the best of the ability with the equipment utilized. The QA Inspector noted the access was very limited due to the stiffeners and splice plates bolted into place. The QA Inspector performed a random visual inspection of the completed grinding and noted the grinding appeared to be in general compliance with ABF submitted 2290 R00.

In addition it was previously discovered by the QA Inspector, a temporary fitting aid remained in place approximately 540mm on the south side of the south longitudinal full depth diaphragm. The QA Inspector

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

observed the QC Inspector utilize a grinding disc and remove the fitting aid and grind the area flush with the base material. After the temporary attachment was removed the QA Inspector randomly observed the QC Inspector Jesse Cayabyab perform magnetic particle testing (MT) of the area where the temporary attachment was removed. The QA Inspector noted no relevant indications were located at the time of the testing.

2E/3E-A

The QA Inspector randomly observed the SE QC Inspector Jesse Cayabyab performing grinding tasks of a previous burn thru in the center of the steel backing at Y=60. The QA Inspector noted the area was previously welded during production welding and it appeared to be under filled and to have slag inclusions. The QA Inspector observed a hole approximate 3mm in diameter along with slag inclusions. The QA Inspector randomly observed the QC Inspector perform grinding tasks in an attempt to remove the indications. After several attempts and the removal of approximately 3mm of steel backing material the QA Inspector suggested the QC Inspector stop grinding and wait for additional approval to proceed. The QA Inspector spoke with the QA Task Lead Inspector Bill Levell and Mr. Levell informed the QA Inspector the Structures Material Representative Patrick Lowry does not want any additional grinding to the steel backing bar in the center of the bar. The QA Inspector re-inspected the area to ensure the grinding complied with a 1":2.5" slope. The QA Inspector noted the slope of the grinding appeared to comply with the contract requirements. The QA Inspector noted the QC Inspector Jesse Cayabyab performed the grinding tasks at Y-2200mm, Y=3850mm, Y=12000mm and Y=16960mm. The Inspector randomly observed and noted to grinding appeared to comply with RFI2290 R00 (pictured below).

4W-pp25-W3-3

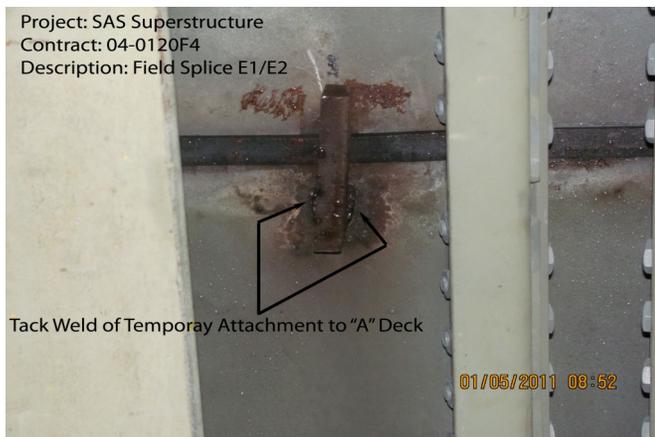
The QA Inspector randomly observed the ABF welder identified as Darcel Jackson continue welding the in process lift lug hole restoration. The QA Inspector noted the weld joint was approximately 50% complete at the time of the QA Inspectors arrival. The QA Inspector randomly observed the ABF welder continue the SMAW fill pass. The QA Inspector randomly observed the SMAW parameters were 1/16" E7018 low hydrogen electrodes with 290 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 noted the weld reinforcement was not ground flush on this date.

3W-pp22-W4-1

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 30% 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 1/16" E7018 low hydrogen electrodes with 288 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 noted the weld reinforcement was not ground flush on this date.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)



Summary of Conversations:

The QA Inspector informed Mr. Cross ABF/SE will need to submit the areas that need to be repaired by grinding prior to performing the work on the "burn thru". The QA Inspector noted the ABF representative Zack Gloria was present and asked the QA Inspector if the response for the approval could be expedited so the work can be performed. The QA Inspector informed Mr. Gloria that was out of the QA Inspectors control, but the department would be diligent and respond with approval in a timely fashion.

The QA Task Lead Bill Levell informed the QA Inspector Rick Bettencourt the Structures Materials Representative Patrick Lowry gave a verbal approval at 0830 for ABF to move forward with the grinding of the "burn thru" areas at transverse field splices identified as 1E/2E-A and 2E/3E-A.

The SE Lead QC Inspector called the QA Inspector and informed the QA Inspector an ABF welder was waiting for approval to perform welding repairs to the steel backing at 2E/3E-A Y=60mm. The QA Inspector informed Mr. Cross ABF did not have an approval to perform welding and if welding was performed it would be performed at the contractor own risk and an incident report would be written for performing a weld repair with out prior engineering approval. The QA Inspector went to 2E/3E-A and noted no ABF personnel was awaiting any welding repairs. It was noted by the QA Inspector no welding leads of any kind had been strung to the location.

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
