

**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 #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019222**Date Inspected:** 07-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 5E-pp35-E4-1, 3W-pp22-W3-3, 2W-pp17-W4-21E/2E-A and the following observations were made:

**5E-pp35-E4-1**

The QA Inspector randomly observed the ABF welder identified as Salvador Sandoval 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 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 1/8" E7018 low hydrogen electrodes with 127 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 the QA Inspectors shift. It was noted the ABF welder performed grinding with a sanding disc or flapper wheel to remove the weld reinforcement from the above identified weld joint. The QA Inspector noted the grinding direction of the marks did appear to be in general compliance with the contract requirements.

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3W-pp22-W3-3

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 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 not complete the above identified lifting lug hole on the QA Inspectors shift.

2W-pp17-W4-2

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 40% 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.

1E/2E-A

The QA Inspector randomly observed the ABF painting contractor setting up to paint the interior of the above identified weld joint. The QA Inspector performed a random visual inspection of the area and noted a temporary attachment or fitting aid remained in place under the top deck plate. The QA Inspector performed random dimensional measurement of the location of the attachment and noted it was approximately 500mm on the south side of the south longitudinal full depth stiffener. The QA Inspector wrote and submitted an incident report for the above identified issue.

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.

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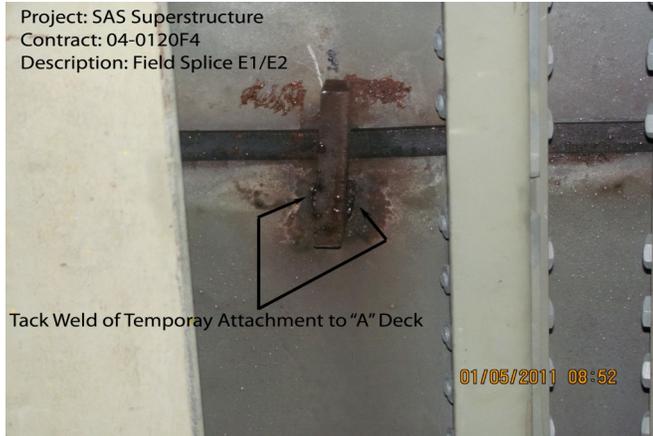
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## Summary of Conversations:

The QA Inspector asked the ABF Project Engineer John Callaghan if ABF had begun the repairs of the burn thru at 2E/3E-A or 6E/7E-A. Mr. Callaghan informed the QA Inspector he was not sure of the locations but some repairs had been started at various locations. The QA Inspector informed Mr. Callaghan that in fact the areas at the above noted locations had been started. The QA Inspector informed Mr. Callaghan ABF RFI-2290 R00 states that each location is to be submitted to the department for approval prior to the work. Mr. Callaghan informed the QA Inspector he will need to read the RFI to be sure.

## 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.

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<b>Inspected By:</b>	Bettencourt,Rick	Quality Assurance Inspector
<b>Reviewed By:</b>	Levell,Bill	QA Reviewer

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