

**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-019857**Date Inspected:** 01-Feb-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 6E-pp44-E4-2, 9E/10E-C1, 1W-10.5-W2 Access Hole and the following observations were made:

**6E-pp44-E4-2**

The QA Inspector randomly observed the ABF welder Salvador Sandoval begin performing the SMAW root pass at the above identified location. The QA Inspector randomly observed the SE QC Inspector Steve McConnell monitoring the in process welding parameters. The QA Inspector noted the weld joint was approximately 10% complete at the time of the QA Inspectors visit. The QA Inspector randomly observed the ABF welder continue the SMAW root/fill pass and complete it on the QA Inspectors shift. The QA Inspector randomly observed the SMAW parameters were 5/32" E7018 low hydrogen electrodes with 150 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 grinding was started on this date. The QA Inspector noted the reinforcement for all 4 holes at the above identified panel point was not all ground off on this date. The QA Inspector noted additional grinding would be required on 2-2-11.

**9E/10E-C1**

The QA Inspector randomly observed the ABF welder Song Tao Hunag had previously started the induction heating blankets on the inside of OBG to ensure the minimum required preheat of 150°F was achieved prior to welding. The QA Inspector randomly verified utilizing a 150°F temperature indicating marker and noted the

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minimum required preheat had been achieved. The QA Inspector observed the ABF welder to be utilizing the semi automated flux cored arc welding (FCAW) for the above identified weld joint. The QA Inspector randomly observed the Smith Emery (SE) QC Inspector identified as Fred Vonhoff set the FCAW machine to the parameters of the approved WPS identified as ABF-WPS-D1.5-3042-B-1 The QA Inspector randomly observed the FCAW parameters were 260 Amps, 24.3 Volts and a travel speed of 300mm/min. The QA Inspector noted the ABF welder continued welding the FCAW fill passes for the remainder of the shift. The QA Inspector noted the fit up in the areas being welded were in compliance with the contract requirements. The QA Inspector noted the welding was completed in the weld segment identified as C1. The QA Inspector noted the ABF welder began moving the FCAW track and equipment to begin welding at weld segment C2. No additional welding was performed on this date.

### 1W-10.5-W2 Access Hole

the Lead QA Inspector Rick Bettencourt performed QA ultrasonic testing (UT) verification of the access hole identified above. The QA Inspector noted the weld splice that was previously turned over by the SE QC Inspector Bonifacio Daquinag. The QA Inspector performed approximately 10% UT and VT verification of the following weld joint. The QA Inspector noted no rejectable indications were located at the time of the testing. The QA Inspector generated TL-6027 for the above identified weld joint. For additional information reference TL-6027 for 2-1-11.

The QA Inspector performed a job walk to update and record the progress of ABF production welding of transverse field splices, stiffeners, access holes and lifting lug holes.

### Summary of Conversations:

No pertinent conversation 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 Sang Le 916-764-5650, 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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