

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF Rte: 80 PM: 13.2/13.9File #: 1x.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000991**Date Inspected:** 11-Dec-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 615**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1400**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Benicia, CA

<b>CWI Name:</b>	William Norris		
<b>Inspected CWI report:</b>	Yes	No	N/A
<b>Electrode to specification:</b>	Yes	No	N/A
<b>Qualified Welders:</b>	Yes	No	N/A
<b>Approved Drawings:</b>	Yes	No	N/A

<b>CWI Present:</b>	Yes	No	
<b>Rod Oven in Use:</b>	Yes	No	N/A
<b>Weld Procedures Followed:</b>	Yes	No	N/A
<b>Verified Joint Fit-up:</b>	Yes	No	N/A
<b>Approved WPS:</b>	Yes	No	N/A
<b>Delayed / Cancelled:</b>	Yes	No	N/A
<b>Component:</b>	Procedure Qualification Record (PQR) test		

**Bridge No:** 34-0006**Summary of Items Observed:**

The Quality Assurance (QA) Inspector arrived at the Ironworkers Apprenticeship Training Facility and met with Smith-Emery Company Quality Control (QC) Inspector William Norris to observe QC functions during the welding of the Procedure Qualification Record (PQR) test plate listed below.

ABF-PQR-026-2-A.

1. The QA Inspector periodically observed American Bridge Floor (ABF) welding personnel Rick Clayborn and Daniel Gordon perform base material preheating prior to starting welding per the Flux Cored Arc Welding Self Shielded (FCAW-S) process to continue making Complete Joint Penetration (CJP) groove weld of the PQR test plate identified as ABF-PQR-026-2-A. The welding was being performed using Electrode Hobart Fabshield XLR-8, E71T-8, and 1.8 millimeter diameter. The welding was being conducted using track guided "Bug-O-System self propel wire feeder" in the 3G vertical position.

a) Prior to the start of welding the QA Inspector observed QC Inspector William Norris verify base material preheating temperature, electrical welding parameters and the travel speed to be approximately 175 degrees Celsius, 238 amperes, 21.2 volts and 105.8 millimeters/minute travel speed. QC Inspector notified the QA Inspector the welding of the test plate will be done using variables to produce the lower calculated welding heat input.

b) During welding QA Inspector periodically observed the QC Inspector William Norris verifying and documenting base material temperature, amperage, voltage and the travel speed of each welding pass. QA

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Inspector observed ABF welding personnel Rick Clayborn performing air carbon arc cutting (gouging) to remove filler metal to open up groove to accommodate subsequent weld passes. Cutting was performed prior to apply the weld pass number 11 at approximately 380 millimeters length of test plate.

c) After welding was completed PQR test plate weld was visually inspected by the QC Inspector William Norris. William Norris notified QA Inspector the weld profile was visually acceptable. The QA Inspector observed the visual verification appeared to be in accordance with the figure 3.3 of the AWS D1.5-2002 and general compliance with the project specifications. QC Inspector William Norris informed the QA Inspector that a final inspection will be conducted on the test plate weld on a later date after the weld was ground flush and the weld run off tabs were removed.

### **Summary of Conversations:**

As noted in the body of the report above. Other basic communication was performed between QA Inspector and the QC Inspector William Norris during observations.

### **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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Medina,Ricardo	Quality Assurance Inspector
<b>Reviewed By:</b>	Mertz,Robert	QA Reviewer

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