

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4
Cty: SF Rte: 80 PM: 13.2/13.9
File #: 1x.28

WELDING INSPECTION REPORT**Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000932**Date Inspected:** 16-Nov-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Benica, CA**CWI Name:** William Norris**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:** Procedure Qualification Record (PQR) test**Summary of Items Observed:**

The Quality Assurance (QA) Inspector arrived at the Ironworkers Apprenticeship Training Facility and met with Smith Emery Quality Control (QC) Inspector William Norris to observe QC functions during the welding of the Procedure Qualification Record (PQR) number ABF-PQR-020-1-A.

1. Prior to starting the testing QC Inspector William Norris provided the QA Inspector with a copy of the Mill Test reports for both the base and backing material, the electrode manufactures certification and the shield gas certification. The QA Inspector observed the documents appeared to comply with the project specifications.

a) QC Inspector William Norris informed the QA Inspector the plates for the PQR had been tack welded together and that he had performed and accepted the fit up of the weld joint. The PQR weld joint is a standard butt joint (B-U2a-GF) intended to be a Complete Joint Penetration (CJP) groove weld. The QA Inspector performed a random visual verification of the fit up of the plates and observed the following. 25.4 millimeters thick base material plates, 12.7 millimeters thick backing bar, 45 degree inclusive groove angle and the root opening of the groove was approximately 6.35 millimeters wide. The overall length of the groove weld, not including the run off tabs, was 762-millimeters.

b) QA Inspector was informed by QC Inspector William Norris a range for the welding parameters (amperage, voltage and travel speed) had been predetermined for the welding of the PQR test plate. Prior to the start of welding the PQR test plate the QA Inspector observed QC Inspector William Norris verify the base material preheating temperature, the electrical welding parameters and travel speed to be approximately 90 degrees Celsius, 272 amperes and 23.8 volts and 5638 millimeters/minute travel speed.

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c) QA Inspector periodically observed American Bridge Floor welding personnel Daniel Gordon and Rick Clayborn performing the welding per the Flux Cored Arc Welding (FCAW) process using Electrode Hobart Tri-Mark TM-910 E71T-1, 1.6 millimeters diameter and 90% Argon 10% CO2 shielding gas. The welding was being conducted using semiautomatic track guided “Bug- O - System in the 3G (vertical) position.

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

The QA Inspector observed the welding performed at this location appeared to be in general compliance with the project plan and specifications. The welding was not completed at this location on this date.

Summary of Conversations:

As noted in the body of the report above. QC Inspector William Norris informed the QA Inspector he intended to monitor and record the electrical welding parameters (amperage, voltage and travel speed) and document the placement of each welding pass in the groove joint.

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.

Inspected By:	Medina,Ricardo	Quality Assurance Inspector
Reviewed By:	Mertz,Robert	QA Reviewer
