

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000527**Date Inspected:** 24-Sep-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1700**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Benicia, CA**CWI Name:** Michael Johnson**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:**

Caltrans Quality Assurance (QA) Inspector Danny C. White (B89) is present at the Ironworkers Apprenticeship Training Facility as requested by American Bridge/Flour (ABF) for the purpose of witnessing Procedure Qualification Record (PQR) tests. On this date, the QA Inspector observed the following personnel present: Smith-Emery Company Quality Control (QC) Representative Certified Welding Inspector (CWI) Mr. Michael Johnson, ABF Representatives Mr. Tommy Gibson, Mr. Rick Clayborn and welder Mr. Dan Gordon.

The QA Inspector observed the fit-up of the PQR test plate known as ABF-PQR-016-1B-CR. The CR designation that follows the PQR test plate number represents Charpy Retest. This PQR test plate is being welded since the Charpy V Notch test for the PQR test plate known as ABF-PQR-016-1B was performed at 0 F degrees and ABF wanted to test these Charpy V Notch samples at -20F to qualify for fracture critical requirements. This is actually the fourth attempt to weld this PQR test plate and it is being welded in the 1G position. The welders are using 1/16 inch diameter (1.6mm) ESAB Dual Shield 70 Ultra Plus E71T-1M (FCAW-G) welding wire and 90% Argon / 10% Carbon dioxide gas. The QA Inspector observed welding of a non PQR test plate. After the root pass was deposited the backing bar was removed by Carbon Arc Cutting (COC) to ascertain how the root pass tied in to the backing. The welders removed the backing bar and observed intermittent incomplete fusion. The welders decided to weld another non PQR test plate and remove the backing bar for observation. The backing bar was removed from this non PQR test plate and the results appeared to be satisfactory to ABF. At the end of the shift the QA Inspector was informed that welding on the PQR test plate mentioned above will start the following day.

Summary of Conversations:

The QA Inspector was presented with the Material Test Results (MTR) for a shipment of backing bar material and it is noted that the Carbon (C) and the Carbon Equivalent (CE) are both less than allowed by code. The QA

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Inspector was informed that a Request For Information (RFI) was submitted and ABF is seeking permission to use this material.

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:	White,Danny	Quality Assurance Inspector
Reviewed By:	Mertz,Robert	QA Reviewer
