

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000371**Date Inspected:** 22-Aug-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**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 backing bar was removed by the welders on (3) PQR plates known as ABF-PQR-011-1C, ABF-PQR-025-1A and ABF-PQR-027-2. These PQR test plates failed Radiographic Testing (RT) because of excessive porosity. The QA Inspector examined the plates mentioned above and determined that porosity was visible on all the plates mentioned above. See the (left) example photo of ABF-PQR-027-2 for additional information.

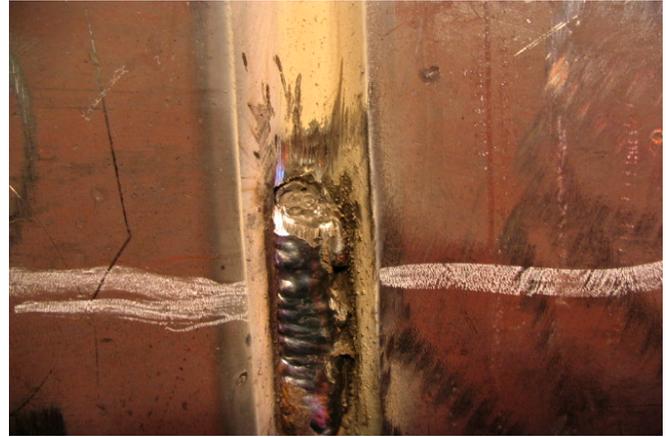
The QA Inspector observed welding the third attempt to weld PQR test plate known as ABF-PQR-002-2B. Welder Dan Gordon completed weld pass number 2 after several starts and stops. These starts and stops occurred at approximately 370 millimeters from the bottom of the plate and the QA Inspector was informed that the welders are having problems with the wire. See the photo on the right for additional information. Mr. Johnson monitored welding amperage, voltage and travel speed parameters. This PQR plate is being welded in the 3G position. The welders are using .072 inch diameter (1.8mm) Lincoln 232 E71T-8 (FCAW-S) process and utilizing a Bug-O Systems mechanical device that travels on a magnetic track. For specific welding parameters recorded during this PQR see Caltrans Welding Witness Report, TL-6032 generated upon the completion of this PQR test plate.

The QA Inspector observed that the Bug-O Systems mechanical device was not functioning properly and was sent

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out several hours for repair which suspended the welding on the PQR plate for several hours. The Bug-O was repaired and welding of the PQR plate resumed.



Summary of Conversations:

See above.

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
