

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/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-000590**Date Inspected:** 08-Oct-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/Fluor (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.

In the beginning of the shift the QA Inspector observed the welding operators set up and weld on (2) non-PQR test plates. Later in the shift the QA Inspector observed the welding operators deposit (3) weld passes onto PQR test plate known as ABF-PQR-015-1 in the 4G position. The welders used 1/16 inch diameter (1.6mm) ESAB 70 Ultra-Plus E70T-1 (FCAW-G) welding wire and 90% Argon/ 10% Carbon Dioxide gas. The welding operators utilized a Bug-O welding device to deposit these welds. The QA Inspector observed that the welders were depositing welds that contained excessive porosity and were having mechanical difficulties with the Bug-O mechanical device. The QA Inspector observed that the welders removed the porosity (see photo below for additional information) by grinding before depositing the next weld pass. ABF informed the QA Inspector that it was decided to ship the Bug-O unit out for repair. ABF informed the QA Inspector that they would be using an ESAB Rail-Track for the remainder of this PQR test. For specific welding parameters recorded during this PQR test see Caltrans Welding Witness Report, TL-6032 generated upon the completion of this PQR test.

WELDING INSPECTION REPORT

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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.

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