

**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-000168**Date Inspected:** 05-Apr-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:** Mike Johnson  
**Inspected CWI report:** Yes No N/A  
**Electrode to specification:** Yes No N/A  
**Qualified Welders:** Yes No N/A  
**Approved Drawings:** Yes No N/A

**CWI Present:** Yes No  
**Rod Oven in Use:** Yes No N/A  
**Weld Procedures Followed:** Yes No N/A  
**Verified Joint Fit-up:** Yes No N/A  
**Approved WPS:** Yes No N/A  
**Delayed / Cancelled:** Yes No N/A

**Bridge No:** 34-0006**Component:** PQR welding**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector Robert Mertz was at the Ironworkers Apprenticeship Training Facility as requested by American Bridge/ Fluor for the continuing purpose of witnessing Procedure Qualification Record (PQR) tests. The following items were observed:

1. The observation is a continuance of a PQR test identified as ABF-PQR-001-1. This PQR test was welded in the flat (1G) position, and is a single-vee groove with 25mm (1) thick A709 Grade 345W steel plate and a 10mm (3/8) thick steel backing bar per Figure 5.1 and is being welded per AWS D1.5, 2002, section 5.13.
2. The Caltrans QA inspector observed Smith Emery Certified Welding Inspector (CWI), Mr. Michael Johnson, ABF Welding Superintendent Mr. Tommy Gibson were present.
3. The Caltrans QA inspector visually observed that four flux cored arc welding (FCAW) fill passes and then three cover passes were then added to the PQR test plate assembly on this date. The welder was using Lincoln NR-232 FCAW wire. The welder Mr. Dan Gordon completed the welding of this test plate on this date and removed the weld tabs, and then started grinding the plate edges and cover pass smooth and flush as defined in D1.5 for radiographic testing (RT) to be performed on a later date.

For additional information and specific welding parameters recorded during this procedure qualification record test, see the Caltrans TL-6032 generated for this date. Digital pictures of observations are available upon request.

**Summary of Conversations:**

Mr. Tommy Gibson stated additional PQR testing would resume on Friday 04-06-2007.

The QC inspector informed Caltrans QA that the five weld passes that were removed due to porosity (5 of 22)

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would not be used for the final calculations to be used in the production WPS. No porosity was observed after changing the wire electrode spool and using the new Miller wire feeder.

The QC inspector stated the radiographic testing (RT) of the test plate would be in San Francisco and mechanical tests will be performed in Los Angeles. The QA inspector provided a TL-101 with METS fax number so the test laboratory could notify the METS office in Vallejo to witness the RT.

### **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>	Mertz,Robert	Quality Assurance Inspector
<b>Reviewed By:</b>	Smith,Ryan	QA Reviewer

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