

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-000165**Date Inspected:** 12-Apr-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1630**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 test plate welding**Summary of Items Observed:**

1. The Caltrans Quality Assurance (QA) inspector observed the start of the welding on a PQR test attempt on a 760 mm long test plate assembly.
2. The Caltrans QA inspector observed that this PQR is being attempted using a Lincoln Idealarc DC-600 power supply in combination with a Miller Suitcase Xtreme 12VS electrode wire feeder for the self-shielded flux cored arc welding (FCAW-S) in the semi-automatic mode.
3. The CWI listed above has been observed monitoring, preheat, interpass temperature, voltage, amperage, travel speed and also the visual appearance of the applied filler weld passes that have been applied to the PQR test plate assembly.
4. The Caltrans QA inspector also monitored and recorded the welding parameters utilizing a Fluke meter for amperage and voltage and also a stop watch for calculating travel speed. The welding parameter values observed and recorded within this Caltrans TL-6032 document are also manually recorded with a sketch.
5. It was observed that Quality Control Inspector Mr. Michael Johnson has applied travel speed indicator gauge markings on the PQR test plate assembly in an effort to assist the welder in maintaining a desired travel speed during the welding of the PQR test plate assembly. Caltrans QA has observed that Mr. Michael Johnson verbally communicates the status of the welders travel speed based on actual stop watch timing and the gauge marks during the course of welding.

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6. The Caltrans QA inspector visually observed that one root pass and seven fill passes of self-shielded flux cored arc welding (FCAW-S) were added to the PQR test plate assembly on this date. The welder observed some slag indications during the preparation for the ninth weld pass and stopped the test due to discovering additional slag. The welder and QC inspector suggested changing the wire feed speed for the next test plate.

Additional information is documented within a Caltrans TL-6032 for this date.

Summary of Conversations:

The QC inspector stated that this PQR was an attempt to qualify lower welding parameters than the previously welded 1G PQR test plate, ABF-PQR-001-1.

The QC inspector stated additional PQR testing would resume on Friday 04-13-2007.

The QA inspector again informed the QC inspector to have ABF QCM, Jim Bowers provide the Charpy impact test temperature and energy values needed. The QA inspector also informed the QC inspector the test is per Figure 5.1 of D1.5, 2002 and Table 4.2 and or section 12 may apply, however the special provisions may requires something different which would supersede the code such as heat affected zone impact tests with different test temperatures and energy values.

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:	Mertz,Robert	Quality Assurance Inspector
Reviewed By:	Smith,Ryan	QA Reviewer
