

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 #: 04-0120F4
Cty: SF Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-000896
Date Inspected: 13-Nov-2007

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 600
OSM Departure Time: 1630
Location: Benicia, Ca.

CWI Name:	William Norris	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:	PQR test	

Summary of Items Observed:

The Caltrans Quality Assurance (QA) Inspector arrived at the Ironworkers Apprenticeship Training Facility and witnessed the welding of the Procedure Qualification (PQR) test plate designated ABF-PQR-024-2. The welding was performed using gas shielded flux cored arc welding (FCAW-G) using gas shielded flux cored arc welding (FCAW-G) using Lincoln Ultracore electrode, 0.062 in. diameter with with 84% Argon 16% CO2 shielding gas. The welding was performed by the American Bridge welding personnel Mr. Daniel Gordon and Mr. Eric Rayburn. The welding was conducted with the support of a track guided "Bug O" system in the 4G (overhead) position. The welding was performed per the AWS D1.5, 2002 Section 5.12 heat input requirements. The Smith Emery QC inspector, Mr. William Norris recorded the preheat and interpass temperatures, the average amperage, voltage and the travel speed for all weld passes. The QA inspector observed that the welder Mr. Eric Rayburn partially removed the third, eighth, ninth and tenth passes using a manual air-carbon arc gouging system to maintain the joint geometry for the following pass. After the air-carbon arc cutting was complete, the weld groove was wire brushed before welding continued. The QA inspector observed that the welding personnel Mr. Rayburn excavated an area approximately 25mm long on the eighth pass due to issues with the track guided "Bug O" system and or the filler metal. Mr. Rayburn performed the repair excavations using a manual air-carbon arc system. After the air-carbon arc cutting was complete, the excavation was ground to resemble a U-groove. The welding personnel Mr. Daniel Gordon rewelded the repair area. The welding of this plate was completed on this date. The QA inspector noted that the welding appeared to meet the minimum requirements of AWS D1.5-2002 and the contract documents.

After completion of the Procedure Qualification (PQR) test plate designated ABF-PQR-024-2, the Procedure Qualification (PQR) test plate designated ABF-PQR-023-1 was started. The welding was performed using gas shielded flux cored arc welding (FCAW-G) using gas shielded flux cored arc welding (FCAW-G) using

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

Hobart Trimark TM-910 electrode, 0.062 in. diameter with with 90% Argon, 10% CO2 shielding gas. The welding was performed by the American Bridge welding personnel Mr. Daniel Gordon and Mr. Eric Rayburn. The welding was conducted with the support of a track guided "Bug O" system in the 4G (overhead) position. The welding was performed per the AWS D1.5, 2002 Section 5.12 maximum heat input requirements. The Smith Emery QC inspector, Mr. William Norris recorded the preheat and interpass temperatures, the average amperage, voltage and the travel speed for all weld passes. The test plate was not completed on this date.

Summary of Conversations:

At the start of welding the Procedure Qualification test ABF-PQR-024-2, the QC inspector, Mr. Norris reported that the test was to be performed in accordance with AWS D1.5-2002 section 5.12, minimum heat input WPS. At the completion of the welding the QC inspector Mr. Morris reported that the test plate visual inspection would be performed at a later date.

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:	Lanz,Joe	Quality Assurance Inspector
----------------------	----------	-----------------------------

Reviewed By:	Mertz,Robert	QA Reviewer
---------------------	--------------	-------------