

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 #: 04-0120F4Cty: 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-016297**Date Inspected:** 18-Aug-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** See below**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:** SAS OBG**Summary of Items Observed:**

The Quality Assurance (QA) Inspector, Rick Bettencourt was on site at the job site between the times noted above. The QA Inspector was on site to randomly observe the in process welding and inspection of the weld joints identified 1E/2E, 2E/3E, 4E/5E and the following observations were made:

5E/6E-C1/C2

The QA Inspector randomly observed the ABF welder Rory Hogan and Jeremy Doleman had previously started the induction heating blankets to ensure the next to the weld joint to ensure the minimum required preheat of 150°F was achieved prior to welding. The QA Inspector randomly verified utilizing a 150°F temperature indicating marker and noted the minimum required preheat had been achieved. The QA Inspector observed the ABF welder to be utilizing flux cored arc welding (FCAW) manually for the above identified weld joint. The QA Inspector randomly observed the Smith Emery (SE) QC Inspector identified as Jim Cunningham set the FCAW machine to the parameters of the approved WPS identified as ABF-WPS-D1.5-3042A The QA Inspector randomly observed the FCAW parameters were 247 Amps, 23.9 Volts and a travel speed of 320mm/min. The QA Inspector randomly observed the ABF welder identified above start the FCAW back weld on the top 2000mm of the weld joint in the am. The QA Inspector noted the ABF welder spent the remainder of the QA Inspectors shift performing the FCAW fill passes. The QA Inspector randomly and periodically observed the welding at the above identified location. It was noted by the QA Inspector the ABF welder did not complete the FCAW on the QA Inspectors shift.

1E/2E-A-LS-1

Upon the arrival of the QA Inspector at the above identified location, the QA Inspector randomly observed the

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

ABF welder James Zhen preparing to begin the SMAW fill/cover pass. The QA Inspector randomly observed the ABF welder preheat the material to 200°F utilizing a rosebud torch. The QA Inspector noted the SE QC Inspector John Pagliero was on site monitoring the in process preheats and welding parameters of approved welding procedure identified as ABF-WPS-D1.5-1012-3. The QA Inspector performed a random visual inspection of the above identified stiffener plate and noted the production welding appeared to be in general compliance with the contract requirements and approximately 80% complete. The QA Inspector randomly observed the ABF welder remove the E9018 1/8" electrodes from the rod container at 0730. The QA Inspector noted the maximum exposure time for the above identified electrodes is on hour. The QA Inspector randomly observed the ABF welder continue the SMAW fill passes on the above identified weld joint. The QA Inspector noted the SMAW parameters were 130 amps and appeared to be in general compliance with the above identified WPS. The QA Inspector noted the ABF welder completed the production welding at 0900. The QA Inspector randomly observed the ABF welder perform grinding tasks of the weld reinforcement on both sides of the weld joint. The QA Inspector noted the 48 hour NDT hold will begin at 0900 on this date. The QA Inspector spoke with the QC Inspector John Pagliero (see summary of conversations)

2E/3E-A-LS-3

Upon the arrival of the QA Inspector at the above identified location, the QA Inspector randomly observed the ABF welder Xiao Jian Wan preparing to begin the SMAW fill passes. The QA Inspector randomly observed the ABF welder preheat the material to 200°F utilizing a rosebud torch. The QA Inspector noted the SE QC Inspector John Pagliero was on site monitoring the in process preheats and welding parameters of approved welding procedure identified as ABF-WPS-D1.5-1012-3. The QA Inspector performed a random visual inspection of the fit up of the above identified stiffener plate and noted the production welding appeared to be approximately 30% from one side only. The QA Inspector noted slow progress was being made by the above identified welder. The QA Inspector noted the ABF welder had previously placed a piece of ceramic bar stock held in place with tape opposite the side of the weld joint receiving the welding. The QA Inspector randomly observed the ABF welder remove the E9018 1/8" electrodes from the rod container at 0715. The QA Inspector noted the maximum exposure time for the above identified electrodes is on hour. The QA Inspector randomly observed the ABF welder continue the SMAW fill pass on the above identified weld joint. The QA Inspector noted the SMAW parameters were 125 amps and appeared to be in general compliance with the above identified WPS. The QA Inspector noted the ABF welder spent the remainder of the shift performing the SMAW fill passes of the above identified weld joint.

1E Drip Edge Installation

Upon the arrival of the QA Inspector, it was observed both of the drip plates had been installed to the directly under the "F" edge plate. The QA Inspector noted only two people can be on the portable scaffold at any given time. The QA Inspector observed the ABF welder Rick Clayborn and ABF helper Ian Murphy were on the scaffold for the duration of the QA Inspectors shift. The QA Inspector turned the welding over to the QA Inspector Danny Reyes at the end of the QA Inspectors shift.

Summary of Conversations:

The QC Inspector John Pagliero informed the QA Inspector the stiffener plates identified as 1E/2E-LS-A-2,3 were previously ultrasonically tested and no rejectable indications were located. The QC Inspector went on to inform the QA Inspector the testing was performed after the 48 hold had expired, but all three stiffener plates would no be turned over to Caltrans METS QA until Friday 8-20-10 after the 1E/2E-LS-A-1 stiffener had been officially tested.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

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 Mohammad Fatemi (916)-813-3677, who represents the Office of Structural Materials for your project.

Inspected By:	Bettencourt,Rick	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
