

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-020578**Date Inspected:** 14-Feb-2011**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 as 1W-pp13.5-W5-LSE, 3W/4W-LSE, 3W-pp19.5-W2, the following items were observed:

1W-pp13.5-W5-LSE

The QA Inspector randomly observed the American Bridge/Fluor (ABF) welder identified as Hua Qinag Xuang begin setting up to perform the SMAW root pass. The QA Inspector randomly verified the bevel angles and noted they appeared to be in general compliance with the contract requirements. The QA Inspector randomly observed the ABF welder had previously installed ceramic backing bar to the backside of the weld joint and held in place with adhesive. The QA Inspector performed a random visual inspection of the fit up and noted the root opening, bevel angle and planar alignment of the complete joint penetration (CJP) groove weld appeared to meet the general requirements of the contract documents.

The QA Inspector randomly observed the ABF welder had previously set up the induction preheating machine and blankets to side of the stiffener opposite the welding. The QA Inspector randomly observed the ABF welder preheat the area to approximately 230°F prior to performing any SMAW. After the minimum required preheat had been achieved, the QA Inspector randomly observed the ABF welder begin the SMAW root pass. The QA Inspector noted the SE QC Inspector Gary Ersham was on site to monitor and record the in process production welding at the above identified location. The QA Inspector randomly observed the SMAW parameters to be approximately 123 Amps with 1/8" E9018 low hydrogen electrodes. The QA Inspector randomly observed the in process welding parameters and dimensional tolerances appeared to be in general compliance with the approved

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welding procedure identified as ABF-WPS-D1.5-1012-3. The QA Inspector noted the ABF welder did not complete the SMAW on the QA Inspectors shift.

3W/4W-LSE

The QA Inspector randomly observed the American Bridge/Fluor (ABF) welder identified as Xiao Jin Wan begin setting up to perform the SMAW root pass. The QA Inspector randomly verified the bevel angles and noted they appeared to be in general compliance with the contract requirements. The QA Inspector randomly observed the ABF welder had previously installed ceramic backing bar to the backside of the weld joint and held in place with adhesive. The QA Inspector performed a random visual inspection of the fit up and noted the root opening, bevel angle and planar alignment of the complete joint penetration (CJP) groove weld appeared to meet the general requirements of the contract documents.

The QA Inspector randomly observed the ABF welder had previously set up the induction preheating machine and blankets to side of the stiffener opposite the welding. The QA Inspector randomly observed the ABF welder preheat the area to approximately 230°F prior to performing any SMAW. After the minimum required preheat had been achieved, the QA Inspector randomly observed the ABF welder begin the SMAW root pass. The QA Inspector noted the SE QC Inspector Gary Ersham was on site to monitor and record the in process production welding at the above identified location. The QA Inspector randomly observed the SMAW parameters to be approximately 128 Amps with 1/8" E9018 low hydrogen electrodes. The QA Inspector randomly observed the in process welding parameters and dimensional tolerances appeared to be in general compliance with the approved welding procedure identified as ABF-WPS-D1.5-1012-3. The QA Inspector noted the ABF welder did not complete the SMAW on the QA Inspectors shift.

3W-pp19.5-W2

The QA Inspector randomly observed the ABF welder identified as Han Wan Yu excavating the previously indicated ultrasonic testing rejects. The QA Inspector randomly observed the ABF welder utilizing a burr bit grinder and excavating at several locations in the weld joint. The QA Inspector noted no welding was performed on the QA Inspectors shift.

Summary of Conversations:

The Lead QA Inspector Rick Bettencourt asked the Lead QC Inspector Bonifacio Daquinag if SE QC was aware of the The ABF project Engineer John Callaghan informed the QA Inspector that the procedure qualification Record (PQR) has been moved to the pier 7 warehouse due to high winds. Mr. Callaghen informed the QA Inspector the PQR plate will be moved to the pier and the welding will be started about 0930.

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 Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

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Inspected By: Bettencourt,Rick

Quality Assurance Inspector

Reviewed By: Levell,Bill

QA Reviewer