

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-016928**Date Inspected:** 21-Sep-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 as lifting lug hole restoration, Access Hole restoration and 6W/7W-A/D the following observations were made:

1E-pp9.5-E4-1

The QA Inspector randomly observed the American Bridge/Fluor (ABF) welder identified as Jin Pei Wang begin setting up to perform the SMAW root pass. The QA Inspector randomly observed the ABF welder perform some base metal grinding of the top deck plate insert prior to commencing 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 to the underside of the top deck plate and held in place with adhesive. The QA Inspector randomly observed the ABF welder had set the circular deck insert onto the ceramic backing and held in place utilizing magnets. 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 preheat the area to approximately 100°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 Steve McConnell was on site to monitor and record the in process production welding at the above identified location.

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

The QA Inspector randomly observed the SMAW parameters to be approximately 123 Amps with 1/8" E7018 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. 5-1050-A. The QA Inspector noted the ABF welder did complete the SMAW on the QA Inspectors shift.

6W/7W-A

Upon the arrival of the QA Inspector it was observed the OBG lifts 6W and 7W had been previously pushed together and the fit up had begun. The QA Inspector randomly observed the ABF welder Rick Clayborn and helper begin performing fitting tasks of the top deck plate identified as 6W/7W-A. The QA Inspector randomly observed the ABF welder installing steel wedges to hold the steel backing bar in place. The QA Inspector randomly observed the ABD welder install the wedges between the underside of the top deck plate and intersection of the splice plates to hold the steel backing in place. The QA Inspector randomly observed the SE QC Inspector Bonifacio Daquinag performing preliminary planar misalignment measurements and indicating the areas which needed additional fitting tasks. After the Stele backing bar had been wedged into place, The QA Inspector randomly observed Mr. Clayborn move to the top side of the top deck plate A and begin installing the fit up gear. The QA Inspector observed the ABF welder perform shielded metal arc welding (SMAW) temporary attachment welds to secure the fit up gear in place. The QA Inspector noted no production welding was performed on this date, only fitting and weld preparation.

6W/7W-D

The QA Inspector was asked to verify the completed fit up of the above identified weld joint. The QA Inspector randomly observed the fit up to be in general compliance for the exception of the first 100mm of weld segment D1. The QA Inspector noted Y=0mm-40mm had 4mm of planar misalignment and 40mm-100mm had 3mm of planar misalignment. The QC Inspector Tony Sherwood informed the QA Inspector no additional fitting tasks could be performed by ABF personnel. The QC Inspector informed the QA Inspector he was aware of the planar misalignment and he would write it up and submit the report for review to the WQCM Jim Bowers.

Summary of Conversations:

As noted above.

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
