

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017069**Date Inspected:** 27-Sep-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1230**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1600**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** John Pagliero**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:** OBG Section**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and to monitor American Bridge/Fluor (ABF) welding operations.

The following observations were made:

- 1) At weld joints E6/E7 – C2, inside the OBG section: ABF welding personnel Xiao Jian Wan (#9677) was performing Shielded Metal Arc Welding (SMAW). QC Inspector John Pagliero was present and monitoring the work.
- 2) At weld joints E6/E7 – C1, inside the OBG section: ABF welding personnel Song Tao Huang (#3794) was performing Flux Cored Arc Welding (FCAW). QC Inspector John Pagliero was present and monitoring the work.
- 3) At weld joints E6/E7 – A1, outside the OBG section: ABF welding personnel Fred Kaddu (#2188) was performing repair welding using the SMAW process. QC Inspector Tony Sherwood was present and monitoring the work.
- 4) At weld joints E6/E7 – A1 thru A5 QC Inspector Tom Pasqualone was performing Ultrasonic Testing (UT) and informed this QA Inspector that he had rejected 8 areas and that the UT was still in progress.

At weld joints E6/E7 – C2, inside the OBG section, this QA Inspector observed ABF welding personnel Xiao Jian

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Wan (#9677) performing SMAW welding. The welding being performed was where the FCAW track system does not have access. This QA Inspector randomly observed QC Inspector John Pagliero verify the following welding parameters; 130 amperes using a 3.2 mm diameter E7018H4R electrode. The welding observed appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15-1040B Rev1. This QA Inspector randomly observed QC Inspector John Pagliero periodically monitoring the welding being performed at this location.

At weld joints E6/E7 – C1, inside the OBG section, This QA Inspector observed ABF welding personnel Song Tao Huang (#3794) performing FCAW using a track system. This QA Inspector randomly observed QC Inspector John Pagliero verify the base metal preheat was greater than 150° F prior to welding. This QA Inspector also observed QC Inspector John Pagliero verify the following welding parameters; 240 amperes and 24 volts at a travel speed of 240 mm per minute. QC Inspector John Pagliero informed this QA Inspector this provided a 1.38 KJ heat input value which was within the ranges of the WPS. The welding randomly observed at this location by this QA Inspector appeared to comply with ABF-WPS-D15-3040A3.

At weld joints E6/E7 – A1, outside the OBG section, this QA Inspector observed ABF welding personnel Fred Kaddu (#2188) performing repair welding using the SMAW process. This QA Inspector observed markings adjacent to the weld indicating multiple areas had been rejected during UT with little space between areas. The repair area appeared to start where the markings started and continue the full length of the marking in that specific area. The weld repair appeared to be approximately 650 mm in length. This QA Inspector verified the following welding parameters; 250 amperes using a 4.8 mm diameter E7018H4R electrode. This QA Inspector ABF welding personnel Fred Kaddu (#2188) had switched to a smaller diameter electrode for the cover passes of the weld. This QA Inspector verified the following welding parameters; 180 amperes using a 4.0 mm diameter E7018H4R electrode. The welding observed appeared to comply with ABF-WPS-D15-1000 Repair. During random monitoring at this location this QA Inspector observed QC Inspector Tony Sherwood was present and monitoring the work.

This QA Inspector randomly observed that QC Inspector Tom Pasqualone was performing UT on weld joints E6/E7 – A1 thru A5. This QA randomly observed the scanning technique, transducer placement and the signals presented on the instruments screen and the UT observed appeared comply with the contract requirements. During these observations QC Inspector Tom Pasqualone informed this QA Inspector that he had rejected 8 areas and that the UT was still in progress.

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:	Hager,Craig	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
