

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-019468**Date Inspected:** 18-Jan-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1100**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Steve McConnell**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 joint 8E/9E -B, inside and outside the OBG section: ABF welding personnel Fred Kaddu (#2188) was observed using the Shielded Metal Arc Welding (SMAW) process for repair welding. QC Inspector Jesus Cayabyab was monitoring the work inside and QC Inspector Steve McConnell was monitoring the work outside.
- 2) At weld joint 6EPP40E3-#3, outside the OBG section: ABF welding personnel Salvador Sandoval (#2202) was observed performing SMAW production welding. QC Inspector Steve McConnell was monitoring the work.
- 3) At weld joint 8E/9E – E1 and E2, outside the OBG section: ABF welding personnel Rory Hogan (#3186) and Jeremy Dolman (#5042) were observed performing Flux Cored Arc Welding (FCAW) production welding. QC Inspector Tony Sherwood was monitoring the work.
- 4) At weld joint 8EPP61.5E2-SW, inside the OBG section: ABF welding personnel Wen Han Yu (#6317) was observed excavating multiple repair areas prior to repair welding. QC Inspector Steve McConnell was monitoring the work.

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At weld joint 8E/9E -B, inside the OBG section this QA Inspector observed ABF welding personnel Fred Kaddu (#2188) using the SMAW process for repair welding. This QA Inspector performed a visual verification noting the repair location as follows: Y-160 (120 mm length, 20 mm width and 20 mm depth). This QA Inspector was informed by QC Inspector Jesus Cayabyab this was the first repair cycle (R-1). This QA Inspector randomly observed ABF welding personnel Fred Kaddu (#2188) using a gas torch to preheat the area and QC Inspector Jesus Cayabyab use an electronic gauge to verify the preheat was greater than 150°F. QC Inspector Jesus Cayabyab also verified the following welding parameters 120 amperes using a 3.2 mm diameter E7018H4R electrode. The work observed at this location appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15-1002-Repair and the contract requirements.

At weld joint 8E/9E -B, outside the OBG section this QA Inspector observed ABF welding personnel Fred Kaddu (#2188) using the carbon arc process to excavate multiple repair areas. This QA Inspector randomly observed QC Inspector Steve McConnell monitoring the work. The carbon arcing of the repairs was not completed during this QA Inspectors' shift a turnover of the work in progress was provided to QA Inspector Jojo Lizardo.

At weld joint 6EPP40E3-#3 (lifting holes), outside the OBG section this QA Inspector observed ABF welding personnel Salvador Sandoval (#2202) performing SMAW production welding. This QA Inspector observed as QC Inspector Steve McConnell verified the following welding parameters; 243 amperes using a 6.35 mm (1/4 inch) diameter E7018H4R electrode. This QA Inspector observed QC Inspector Steve McConnell periodically monitor the work. The work observed by this QA Inspector appeared to comply with ABF-WPS-D15-1050A-CU and the contract requirements.

At weld joint 8E/9E – E1 and E2, outside the OBG section this QA Inspector observed ABF welding personnel Rory Hogan (#3186) and Jeremy Dolman (#5042) began performing FCAW production welding using the track system. This QA Inspector randomly observed QC Inspector Tony Sherwood verify the following welding parameters; 250 amperes and 23 volts at a travel speed of 170 mm per minute. This QA Inspector observed QC Inspector Tony Sherwood periodically monitoring the work. The work observed at this location appeared to comply with ABF-WPS-D15-3040A-3 and the contract requirements.

At weld joint 8EPP61.5E2-SW, inside the OBG section this QA Inspector observed ABF welding personnel Wen Han Yu (#6317) using a grinder to excavate multiple repair areas. This QA Inspector was informed by QC Inspector Steve McConnell there were 9 areas marked for excavation on the inside of the weld. This QA Inspector randomly observed QC Inspector Steve McConnell periodically monitoring the excavation work. The excavation of the repairs was not completed during this QA Inspectors' shift a turnover of the work in progress was provided to QA Inspector Jojo Lizardo.

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

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Inspected By: Hager, Craig

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer