

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:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027341**Date Inspected:** 16-Mar-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** jobsite**CWI Name:** Salvador Merino**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 project**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 /or monitor American Bridge/Fluor (ABF) welding operations. This Quality Assurance (QA) Inspector, Craig Hager observed the following.

Orthotropic Box Girder (OBG) sections:

12E/13E-Longitudinal Stiffener (LS) Bottom Stiffener Flange (BSF): This QA Inspector randomly observed ABF welding personnel Jeremy Dolman (#5042) using the Shielded Metal Arc Welding (SMAW) process to weld the North and South plates. This QA Inspector observed QC Inspector Salvador Merino verify the following welding parameters; 121 amperes. This QA Inspector observed a 3.2 mm diameter, E9018 electrode was being used and verified the preheat was greater than 200°F with a temperature indicating marker. This QA Inspector reviewed Welding Procedure Specification (WPS) ABF-WPS-D15-1162-4; used by QC and observed the welding appeared to comply with the contract requirements. This QA Inspector observed a heated electrode storage container was at this work location. This QA Inspector observed welding appeared to be approximately 75% complete by the end of the shift this date.

13E/14E-Longitudinal Stiffener (LS): This QA Inspector randomly observed ABF welding personnel Richard Garcia (#5892) using the SMAW process to weld LS-4 weld joint. This QA Inspector randomly observed QC Inspector Salvador Merino verify the following welding parameters; 117 amperes. This QA Inspector used a temperature indicating marker to verify the preheat temperature was greater than 200°F and observed a 3.2 mm

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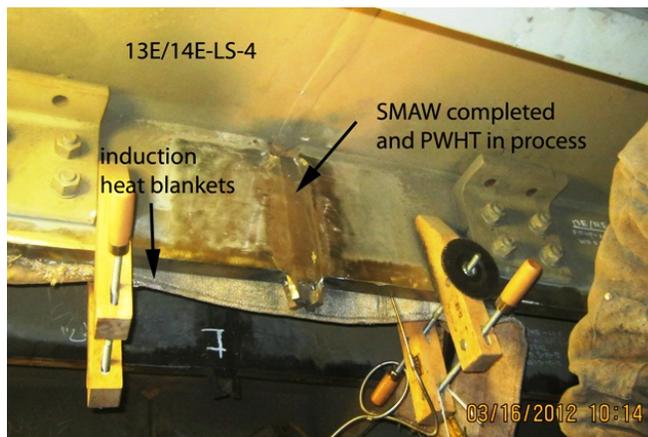
diameter, E9018 electrode was being used. This QA Inspector reviewed ABF-WPS-D15-1012-3, being used by QC and observed the welding appeared to comply with the contract requirements. This QA Inspector observed a heated electrode storage container was present at this work location. This QA Inspector observed the welding appeared to be completed at approximately 0930 hours this shift and the Post Weld Heat Treatment (PWHT) had begun at this time. This QA Inspector observed the PWHT was completed at approximately 1230 hours. The previous day this QA Inspector observed two areas were marked for repair after a preliminary Ultrasonic Testing (UT) was performed on LS-5. This QA Inspector observed ABF welding personnel Richard Garcia (#5892) had excavated the two areas for repair. This QA Inspector randomly observed as QC Inspector Salvador Merino performed Magnetic Particle Testing (MT) and a visual inspection of the excavations. QC Inspector Salvador Merino informed this QA Inspector he had accepted both inspections on both excavations. This QA Inspector performed a visual verification and observed both excavations had been made from the South side of the weld; excavation #1 was 80 mm long, 25 mm wide and 15 mm deep, excavation #2 was 100 mm long, 27 mm wide and 16 mm deep. The depths of the UT defects were both marked as being 12 mm deep. The excavation areas appeared to comply with the contract requirements.

F.W. Spencer: This QA Inspector observed F.W. Spencer personnel were not present this date, presumably due to the inclement weather (rain and high winds). QC Inspector Steve Jensen confirmed this observation this shift.

In general the weather this shift consisted of heavy rain and high winds at various times. The work shift was originally scheduled to be 10 hours, but was shortened to 8 hours due to the overall weather conditions.

Summary of Conversations:

This QA Inspector had general conversations with American Bridge/Fluor (ABF) personnel, QC personnel and Caltrans personnel during the shift. Except as described above there were no notable conversations.



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