

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-027321**Date Inspected:** 08-Mar-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** jobsite**CWI Name:** Fred Von Hoff**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.

Tower Elevation 13-Meters:

This QA Inspector was informed by QC Inspector Fred Von Hoff that ABF welding personnel had completed the Submerged Arc Welding (SAW) portion of the welding at weld joint W101. This QA Inspector observed the weld had been covered with the induction heating blankets and was informed by QC the Post Weld Heat Treatment (PWHT) had started at approximately 0900 hours.

ABF welding personnel Danny Ieraci (#3232) informed this QA Inspector he intended to start welding at W104 and W105. This QA Inspector observed the shear plate appeared to be blow the plane of the diaphragm plates, see photo below. This QA Inspector used a straight edge and measured an offset of 11 mm for the vast majority of the length on both weld joints. This QA Inspector informed Lead QA Inspector Danny Reyes of the observation and was informed that Engineering had previously been informed of this issue.

12W/13W Longitudinal Stiffener (LS) LS-4: This QA Inspector observed ABF welding personnel Jeremy Dolman (#5042) using the Shielded Metal Arc Welding (SMAW) process to weld the Partial Joint Penetration (PJP) stiffener plates at the bottom and centered on LS-4. This QA Inspector observed QC Inspector Jesus

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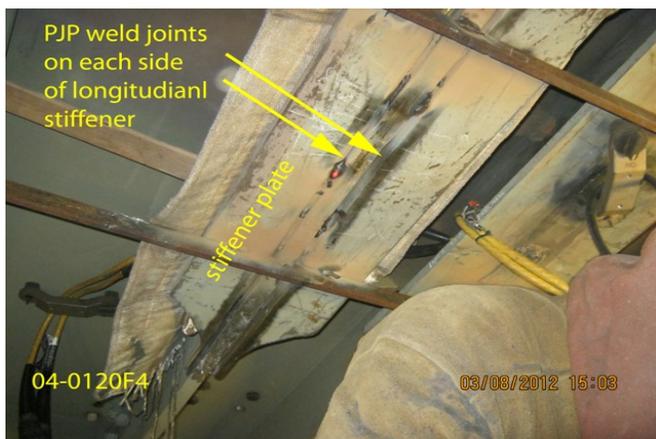
Cayabyab monitoring the work at this location and informed this QA Inspector he had verified the welding amperage to be 120 amperes. This QA Inspector observed an E9018 electrode was being used, the induction heat blankets were being used and the welding appeared to comply with the contract requirements.

13W/14W Longitudinal Stiffener (LS) LS-4: This QA Inspector observed ABF welding Richard Garcia (#5892) using the SMAW process to weld the PJP stiffeners at the bottom and centered on LS-4. This QA Inspector observed QC Inspector Salvador Merino was monitoring the work at this location and informed this QA Inspector he had verified the welding amperage to be 119 amperes. This QA Inspector observed the induction heating blankets were being used to maintain the preheat temperature and that an E9018 electrode was being used. See photo below of welding in progress.

This QA Inspector was informed the weld repairs had been completed and accepted, including all QC inspections, at 13W-PP119.5-W3, Lifting Lug Holes LLH-1, 3 and 4. This QA Inspector performed a random Ultrasonic Testing (UT) verification on approximately 25% of the overall weld length. This QA Inspector did not observe a UT signal indicating a defect in the weld(s). See Ultrasonic Inspection Report (TL-6027) this date for more details.

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.

Inspected By: Hager, Craig

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer