

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 #: 1x.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013835**Date Inspected:** 30-Apr-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1200**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Tony Sherwood**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 Sections**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) Repair welding was being performed at E2/E3 – E1 and E2 -outside; ABF welding personnel Mitch Sittinger (#0315) and QC Inspector Tony Sherwood.
- 2) Repair at E3/E4-B1 adjacent to the deck plate a crack was previously excavated; ABF was waiting for Engineer approval to proceed.
- 3) Weld E3/E4-E1 and E2 the backing has been removed and back gouging was in progress.
- 4) QC Inspector Barry Drake stated the visual and Magnetic Particle Testing (MT) at E1/E2-C1 and C2 on the inside had been completed and accepted.
- 5) QC Inspector Tony Sherwood stated the visual and Magnetic Particle Testing (MT) of the repair welding which had been performed from the inside at E1/E2-D2 had been completed and accepted.

At E2/E3 – E1 and E2 -outside this QA Inspector randomly observed QC Inspector Tony Sherwood monitoring repair welding using the Shielded Manual Arc Welding (SMAW) process by ABF welding personnel Mitch

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Sittinger (#0315). For the previous 3 days repair welding had been performed at E1/E2 – D1 – inside. Please note that repair welding is not complete at this location; multiple repairs are outstanding which ABF has elected perform from the outside surface of the weld, but has elected to start repairs on the outside at a different location. ABF welding personnel Mitch Sittinger (#0315) informed this QA Inspector there were a total of 4 areas for repair and that 3 would be excavated from the outside and 1 from the inside. This QA Inspector randomly observed as the 3 areas on the outside were marked and excavation was started using a grinder. This QA Inspector randomly observed QC Inspector Tony Sherwood perform a visual and MT inspection of the first excavation prior to welding. QC Inspector Tony Sherwood informed this QA Inspector the excavation was accepted; this QA Inspector performed a visual verification of the excavation and the work appeared to comply with the contract requirements. This first excavation was approximately 90 mm long, 22 mm wide, 13 mm deep and 1,240 mm from the edge plate (F). This QA Inspector observed QC Inspector Tony Sherwood verify the following welding parameters prior to the start of repair welding: 115 amperes using a 3.2 mm diameter E7018 electrode. The welding observed appeared to comply with WPS - ABF-WPS-D15-1001-Repair. Welding was still being performed at this location at the end of this QA Inspector's shift. QC Inspector Tony Sherwood stated the visual and Magnetic Particle Testing (MT) of the repair welding which had been performed from the inside at E1/E2-D2 had been completed and accepted. This QA Inspector performed a visual verification and the work observed appeared to comply.

This QA Inspector observed in the turnover from the previous shift a crack like indication had been observed at E3/E4-B1 adjacent to the deck plate. QC Inspector Tom Pasqualone informed this QA Inspector the area had been excavated but that no further work was going to be performed until Engineer approval for the proposed repair had been accepted.

This QA Inspector observed ABF personnel performing back gouging at weld E3/E4-E1 and E2 from outside the OBG. The back gouging appeared to approximately 75% complete.

At the end of this QA Inspector's shift QC Inspector Barry Drake stated the visual and Magnetic Particle Testing (MT) at E1/E2-C1 and C2 on the inside had been completed and accepted. This QA Inspector informed 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 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
