

**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-018270**Date Inspected:** 15-Nov-2010**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:** 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 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 6W/7W-B, inside the OBG section: ABF welding personnel Fred Kaddu (#2188) was performing repair welding using the Shielded Metal Arc Welding (SMAW) process. QC Inspector Tony Sherwood was present and monitoring the work.
- 2) At weld joints 6W/7W-F, inside the OBG section: ABF welding personnel Jorge Lopez (#6149) was performing repair welding using SMAW process. QC Inspector Tony Sherwood was present and monitoring the work.
- 3) At weld joints 6W/7W-C, outside the OBG section: ABF welding personnel Rory Hogan (#3186) and Jeremy Dolan (#5042) had completed welding and were in the process of moving the welding equipment to the East OBG sections.
- 4) At weld joint E3-PP23.5-E5-NE (access plate) QC Inspector Steve McConnell was performing a visual and Magnetic Particle Testing (MT) inspection on the completed face of the weld on top side of the deck.

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## WELDING INSPECTION REPORT

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5) At weld 2E-PP17-E3 #1 (round deck penetration) QC Inspector Pat Swain was performing Ultrasonic Testing (UT) from the top side of the deck.

At weld joints 6W/7W-B, inside the OBG section this QA Inspector observed ABF welding personnel Fred Kaddu (#2188) performing repair welding using the SMAW process . The repair area was from “C” weld joint to the first stiffener and the welding observed consisted of several fill passes and the cover passes. This QA Inspector performed a verification of the welding parameters and observed the following: 122 amperes using a 3.2 mm diameter E7018H4R electrode. This QA Inspector observed QC Inspector Tony Sherwood was monitoring the work at this location. The welding observed by this QA Inspector appeared to comply with ABF-WPS-D15-1002 Repair. QC Inspector Tony Sherwood informed this QA Inspector this was a first time excavation (R-1) and that repair welding was completed from inside the OBG section. ABF welding personnel Fred Kaddu (#2188) stated he would be relocating to outside the OBG section to start repair welding. This QA Inspector informed QA Inspector Jojo Lizardo of the proposed welding location in a turn over at the end of the shift.

At weld joints 6W/7W-F, inside the OBG section this QA Inspector observed ABF welding personnel Jorge Lopez (#6149) performing repair welding using the SMAW process. The repair area was between “E” weld joint and the first stiffener. The welding observed consisted of several cover passes. This QA Inspector performed a verification of the welding parameters and observed the following: 123 amperes using a 3.2 mm diameter E7018H4R electrode. This QA Inspector observed QC Inspector Tony Sherwood was monitoring the work at this location. The welding observed by this QA Inspector appeared to comply with ABF-WPS-D15-1002 Repair. Upon completing this weld this QA Inspector observed ABF welding personnel Jorge Lopez (#6149) starting the excavation of another repair at the bottom of weld “F” at the transition area of weld “E”. QC Inspector Tony Sherwood informed this QA Inspector the welded repair and the excavation were both first time excavations (R-1). This QA Inspector informed QA Inspector Jojo Lizardo of the work in progress at this location in a turn over at the end of the shift.

At weld joints 6W/7W-C, outside the OBG section this QA Inspector observed ABF welding personnel Rory Hogan (#3186) and Jeremy Dolan (#5042) had completed welding and was informed they were in the process of moving the welding equipment to the East OBG sections.

At weld joint E3-PP23.5-E5-NE (access plate) this QA Inspector randomly observed QC Inspector Steve McConnell was performing a visual and Magnetic Particle Testing (MT) inspection on the completed face of the weld on top side of the deck. QC Inspector Steve McConnell informed this QA Inspector he had marked several locations for under fill / undercut of the weld. This QA Inspector observed 6 areas marked in yellow paint marker indicating the specific areas.

At weld 2E-PP17-E3 #1 (round deck penetration) this QA Inspector randomly observed QC Inspector Pat Swain performing UT from the top side of the OBG deck. The transducer being used appeared to be a 70 degree shearwave and the scanning patter appeared to comply with the code requirements. QC Inspector Pat Swain informed this QA Inspector he had just started the inspection and had observed several (2) areas that were possible defects.

### **Summary of Conversations:**

As noted above.

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### 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.

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<b>Inspected By:</b>	Hager,Craig	Quality Assurance Inspector
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<b>Reviewed By:</b>	Levell,Bill	QA Reviewer
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