

**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-017693**Date Inspected:** 28-Oct-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 7E/8E-E-2, inside the OBG section: ABF welding personnel Song Tao Huang (#3794) was performing Shielded Metal Arc Welding. QC Inspector Tony Sherwood was present and monitoring the work.
- 2) At weld joints 7E/8E-A-3, outside the OBG section: ABF welding personnel Fred Kaddu (#2188) was using the SMAW process for repair welding. QA Inspector Tom Pasqualone was present and monitoring the work.
- 3) On the top deck at various locations on the East OBG sections: ABF welding personnel Darcel Jackson (#9967) and Eric Sparks (#3040) were grinding and/or using the SMAW process for production work on the round access plate inserts. QC Inspector Mike Williams was present and monitoring the work.
- 4) Access plate insert – 3E-PP 23.5-E2-S, outside the OBG section: QC Inspector Pat Swain was performing Ultrasonic Testing (UT) on the weld joint.

At weld joints 7E/8E-E-2, inside the OBG section this QA Inspector observed ABF welding personnel Song Tao Huang (#3794) performing SMAW at the top section of weld joint where the track system does not have access.

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## WELDING INSPECTION REPORT

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This QA Inspector observed QC Inspector Tony Sherwood was present and monitoring the work. This QA Inspector performed a verification of the welding parameters and observed the following: 144 amperes using a 3.2 mm diameter E7018H4R electrode. The welding observed appeared to comply with ABF-WPS-D15-1040-B Rev-1.

At weld joints 7E/8E – A-3, outside the OBG section this QA Inspector observed ABF welding personnel Fred Kaddu (#2188) performing weld repairs using the SMAW process. This QA Inspector observed QC Inspector Tom Pasqualone was present and monitoring the work. This QA Inspector performed a verification of the welding parameters and observed the following: 142 amperes using a 3.2 mm diameter E7018H4R electrode. The welding observed appeared to comply with ABF-WPS-D15-1001 Repair. This QA Inspector confirmed with QC Inspector Tom Pasqualone this was the first (R-1) repair cycle being performed.

At access plate insert – 3E-PP 23.5-E2-S, outside the OBG section this QA Inspector observed QC Inspector Pat Swain performing Ultrasonic Testing (UT) on the weld joint. This QA Inspector randomly observed the transducer wedge combination appeared to be a 70 degree shearwave. This QA Inspector randomly observed the scanning pattern and signals on the screen presentation which appeared to comply with the contract requirements. QC Inspector Pat Swain commented that he had scanned approximately 25% of the weld length and had not observed any signals indicating a defect in the weld.

On the top deck at the locations noted below on the East OBG sections this QA Inspector observed ABF welding personnel Darcel Jackson (#9967) and Eric Sparks (#3040) grinding and/or using the SMAW process for production welding on the round access plate inserts. QC Inspector Mike Williams was present and monitoring the work.

A. 3E-PP 17-E3 #2 ABF welding personnel Eric Sparks (#3040) was performing production SMAW welding. This QA Inspector performed a verification of the welding parameters observing the following: 135 amperes using a 4 mm diameter E7018H4R electrode. The welding observed appeared to comply with ABF-WPS-D15-1070 Rev-1.

B. E4-PP 17-3E # 2 and # 4 ABF welding personnel Darcel Jackson (#9967) was fitting into position the carbon steel plates and copper backing being used.

### **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.

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

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