

**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-018903**Date Inspected:** 27-Dec-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:** 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:** 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 joint 7E/8E-C 1 and 2, inside the OBG section: QC Inspector Jesus Cayabyab was transferring Ultrasonic Testing (UT) defects discovered from scanning on the outside of the OBG to the inside for repair welding purposes.
- 2) At weld joint 5E-PP29.5-E2 (Access Plate), inside the OBG section: ABF welding personnel Hua Qiang Hwang (#2930) was grinding the overhead welding previously completed.
- 3) At weld joint 8E/9E-E1 and 2, inside the OBG section: ABF welding personnel Sang Tao Huang (#3794) was using the Shielded metal Arc Welding (SMAW) process to weld areas where the Flux Cored Arc Welding (FCAW) track system could not access. QC Inspector Fred Von Hoff was monitoring the work.
- 4) At weld joint 8E/9E-A5, outside the OBG section: ABF welding personnel Wai Kitlai (#2953) was using a grinder to excavate 3 defects for repair welding.
- 5) This QA Inspector observed multiple ABF personnel preparing the transverse weld seams and moving

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## WELDING INSPECTION REPORT

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equipment in preparation of OBG section 10E being placed.

At weld joint 7E/8E-C 1 and 2, inside the OBG section this QA Inspector observed QC Inspector Jesus Cayabyab transferring Ultrasonic Testing (UT) defects discovered from scanning on the outside of the OBG to the inside for repair welding purposes.

At weld joint 5E-PP29.5-E2 (Access Plate), inside the OBG section this QA Inspector observed ABF welding personnel Hua Qiang Hwang (#2930) grinding the overhead welding previously completed. QC Inspector Fred Von Hoff was present during this observation and asked ABF welding personnel Hua Qiang Hwang (#2930) if welding was to be performed at this location and was informed that he did not anticipate the need to do any additional welding. QC Inspector Fred Von Hoff informed ABF welding personnel Hua Qiang Hwang (#2930) that he would stop by periodically but that if welding was to be performed then he would need to notify a QC Inspector prior to starting.

At weld joint 8E/9E-E1 and 2, inside the OBG section this QA Inspector observed ABF welding personnel Sang Tao Huang (#3794) was performing SMAW where there was limited access for the FCAW track system. This QA Inspector observed QC Inspector Fred Von Hoff verify the following welding parameters; 145 amperes. This QA Inspector observed welding was being performed using a 3.2 mm diameter E7018H4R electrode and verified the preheat was greater than 150°F. The welding observed appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15-1040-B Rev-1.

At weld joint 8E/9E-A5, outside the OBG section this QA Inspector observed ABF welding personnel Wai Kitlai (#2953) was using a grinder to excavate defects for repair welding. This QA Inspector observed 3 areas for excavation, 2 marked on the face of the weld at Y-4222 and Y-4664 with paint and 1 area which was in the process of being excavated. This QA Inspector QC Inspector Pat Swain was monitoring the work. This QA Inspector informed QA Inspector Jojo Lizardo of the work in progress during a turnover at the end of the shift.

This QA Inspector observed multiple ABF personnel preparing the transverse weld seams on OBG section 9E and moving equipment in preparation of the lift of OBG section 10E.

### 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 Nina Choy (510) 385-5910, 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>	Mertz,Robert	QA Reviewer

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