

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

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-018439**Date Inspected:** 01-Dec-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Listed below.**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:** S.A.S. Components**Summary of Items Observed:**

The Quality Assurance Inspector (QAI), Scott Croff, was present at the Self Anchored Span (SAS) job site to observe the scheduled fabrication and welding of components for the SFOBB project. The following observations were made:

## 1) OBG Deck Hole Welding

The QAI made observations of welding of the OBG deck hole patches on the East and West lines of the S.A.S. OBG structure. The QAI noted that these patches are being placed and welded into the deck access / ventilation holes and lifting lug holes. The QAI observed Salvador Sandoval, ID 2202, using shielded metal arc welding (SMAW) to make repairs to lifting lug patch welds. The QAI noted that repairs are being made at Panel Point (PP) 17-E3 #1 and #3. The QAI also noted that the repairs include in-process work and repairs of deficient welds. The QAI noted that the repair welding is being monitored by the Quality Control (QC) Inspector Pat Swain. The QAI was informed that welding procedure specification (WPS) ABF-WPS-D15-1001-Repair is being used for this welding. The QAI randomly measured the welding parameters and noted that they appeared to be conforming to the WPS requirements. The QAI noted that as the repairs were completed, the welds were being ground smooth and flush with the deck surface.

The QAI observed ABF personnel performing the following: Earl Espinoza, ID 5824, fitting and welding lifting lug patches at PP27 E4 #2 and #4; Mike Jininez, ID 4671, welding lifting lug patch at PP8.5 W4 31 and Darcel Jackson, ID 9967, fitting and welding lifting lug patch at PP8.5 W3 #1 (see attached photo). The QAI also observed that the QC Inspector Pat Swain is monitoring the fitting and welding at PP27 E4 and the remaining

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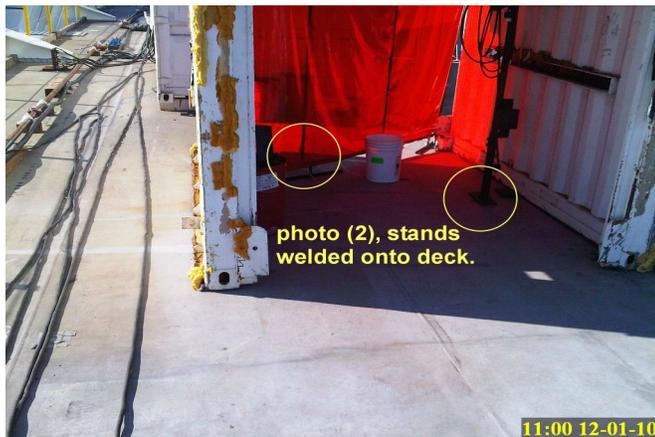
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welders are being monitored by the QC Inspector Mike Johnson. The QAI noted that ABF-WPS-D15-1070 is being used for this welding. The QAI randomly measured the welding parameters and noted that they appeared to be conforming to the WPS requirements. This work was in progress at the end of the shift. See the attached photo.

The QAI made observations of fitting on deck access hole patch at PP61.5-E2SE. The QAI observed Mick Chan, ID 9265, using SMAW to make the tack welds as the patch was being fit up. The QAI noted that the QC Inspector Steve McConnell is monitoring this work. During the process of fitting, the QAI noted that the complete joint penetration (CJP) weld has apparent gaps which exceed the WPS requirements. The QC Inspector informed the QAI that weld build up will be performed after all the fitting has been completed. The QAI noted that the fit up was in progress at the end of the shift. The QAI also observed that the deck access hole patch at PP46.5 E2SE has been fit up and the root pass has been welded. The QAI did not observe any other work being performed at this location. See the attached photo.

While the QAI was in this area, it was observed that the contractor has tack welded training equipment (welding stands) onto the deck of the permanent structure. The QAI brought this to the attention of the QC Inspector Steve McConnell and asked the QC Inspector if there was any reason why these welding stands would be welded onto the deck. The QC Inspector replied that he was not aware of them being welded. The QC Inspector was shown the stands and asked if he knew who / when these have been welded. The QC Inspector was not able to answer these questions and remarked that anyone could have welded them, including a trainee. The QAI also asked the QC Inspector if it could be determined what electrode could have been used, as there are multiple grades / brands of electrodes present on the job site. The QC Inspector was not able to answer this question. The QC Inspector informed the QAI that these welds will be inspected when the parts are removed but could not specify when that would occur. See the attached photos.



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## Summary of Conversations:

The QAI had general conversations with ABF, QC and Caltrans personnel during this shift. As described above, the QAI had a conversation with the QC Inspector Steve McConnell regarding the contractors equipment that has been welded onto the deck of the OBG. The QAI relayed the observations of OBG splice welding to the QAI Danny Reyes. The QAI also generated a shift turn-over report with this information. The QAI relayed the status of work observed to the Lead QAI Bill Levell. The QAI was informed that a request for weld repair has been approved for 7E/8E-A5. Except as described above, there were no other notable observations or conversations during this shift.

## 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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**Inspected By:** Croff,Scott

Quality Assurance Inspector

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**Reviewed By:** Levell,Bill

QA Reviewer