

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015151**Date Inspected:** 22-Jun-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 730**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1600**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:** Orthotropic Box Girders**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 Lifts 3E/4E - plate D back welding
- 2) OBG Lifts 4E/5E - plate C field splice welding
- 3) Pier 7 activities

1) The QAI observed ABF personnel back welding plate D at OBG lifts 3E/4E field splice. The QAI noted that the overhead position (4G) CJP weld segments D1 and D2 are being completed after the backing bar has been removed. The QAI noted that the Quality Control (QC) Inspector James Cunningham is monitoring this welding. The QAI observed ABF worker Mitch Sittinger, ID 0315, making the welds with gas shielded flux cored arc welding (FCAW-G). The QAI was informed that Welding Procedure Specification (WPS) ABF-WPS-D15-3040A-1 is being used for this welding. The QAI randomly measured the preheat, interpass temperature and welding parameters and noted that they appeared to be conforming to the WPS requirements. As the work was completed, the QAI noted that ABF personnel were removing the welding equipment to set up at another location. The QAI made a random visual examination of the completed weld and noted that there was underfill visible at 1 location. See the attached photo. The QAI noted that the weld still needs to be ground smooth and flush with the OBG plates. The QAI was not able to locate any markings indicating that the weld has been visually inspected at this time. The QAI located the QC Inspector James Cunningham and relayed that there is underfill visible and has been marked out for location. The QC Inspector made no comments to the QAI

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regarding when this would be finished.

2) The QAI observed ABF personnel welding the inside of plate C at OBG lifts 4E/5E field splice. The QAI noted that this vertical (3G) CJP weld is being made in segment C1. The QAI noted that the QC Inspector Bernie Docena is monitoring this welding. The QAI observed ABF workers Jin Quan Huang, ID 9340, and Song Tao Huang, ID 3794, making the welds with gas shielded flux cored arc welding (FCAW-G). The QAI was informed that welding procedure specification (WPS) ABF-WPS-D15-3040A-1 is being used for this welding. The QAI randomly measured the preheat, interpass temperature and welding parameters and noted that they appeared to be conforming to the WPS requirements. See the attached photo.

3) The QAI observed ABF activities at the Pier 7 location. The QAI did not observe any Quality Control (QC) Inspectors present. The QAI noted that ABF personnel are welding on barges and other job related equipment. The QAI also noted that the contractor is assembling parts of the temporary trestle and Favco crane on the barges at Pier 7. The QAI did not observe any personnel welding on bridge components (OBG 6W). The QAI noted that the tower head saddles are being offloaded from a freighter at Pier 7. The QAI noted that this work was in progress until the end of the shift.

The QAI reviewed contract related documents including the submitted and approved Welding Quality Control Plan (WQCP) and approved revisions to the WQCP and newly issued ABFJV non-conformance reports. The QAI continued reviewing the contractor's welding reports, submittal # 1536 Revision 7, for conformance to the contract special provisions. The review was in progress at the end of this shift.



## Summary of Conversations:

As noted above, the QAI informed the QC Inspector James Cunningham of underfill visible in the backweld of D2 at 3E//4E field splice. The QC Inspector did not reply to the QAI when notified. The QAI also relayed the observations of OBG splice welding to the QAI Danny Reyes. The QAI generated a shift turn-over report with this information. The QAI relayed the observations at Pier 7 and the general status of work observed to the QAI Lead Bill Levell. 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 Mohammad Fatemi, (916)813-3677, who represents the Office of Structural

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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