

**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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012385**Date Inspected:** 03-Mar-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

<b>CWI Name:</b>	Bernie Docena		
<b>Inspected CWI report:</b>	Yes	No	N/A
<b>Electrode to specification:</b>	Yes	No	N/A
<b>Qualified Welders:</b>	Yes	No	N/A
<b>Approved Drawings:</b>	Yes	No	N/A

<b>CWI Present:</b>	Yes	No	
<b>Rod Oven in Use:</b>	Yes	No	N/A
<b>Weld Procedures Followed:</b>	Yes	No	N/A
<b>Verified Joint Fit-up:</b>	Yes	No	N/A
<b>Approved WPS:</b>	Yes	No	N/A
<b>Delayed / Cancelled:</b>	Yes	No	N/A

**Bridge No:** 34-0006**Component:** Orthotropic Box Girders (OBG)**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 field splice welding

1) The QAI observed ABF personnel making complete joint penetration (CJP) welds on the stiffener plates of bottom plate D at OBG Lifts 1E/2E field splice. The QAI noted that the Quality Control (QC) Inspector Bernie Docena is monitoring the welding at this location. The QAI noted that gas shielded flux cored arc welding (FCAW-G) with 1/16" diameter E71T-1M electrode and Ar/CO2 shielding gas with Welding Procedure Specification (WPS) ABF-WPS-D15-3010-3. The QAI observed that Song Tao Huang, ID 3794, James Zhen, ID 6001 and Jin Quan Huang, ID 9340, are making the vertical (3G) FCAW-G CJP welds. At the beginning of the welder's shift, the QAI witnessed the QC Inspector visually inspect the areas to be welded. The QAI noted that the 35mm thick stiffener splices are double bevel configuration and per WPS will need a minimum preheat temperature of 200°F. The QAI was informed that only 1 side of the double bevel will be welded at this time. The QAI was also informed that when the 1 side is finished, the weld will be allowed to cool back to ambient temperature. The QAI relayed that the contract special provisions require welds with preheat temperature over 150°F be maintained at preheat temperature through the welding and for 3 hours after welding is completed. The QAI was informed that ABF has determined that these welds do not need to be maintained at preheat temperature during welding or for 3 hours after. As the stiffener splices were being fit up, the QAI was attempting to monitor and photograph the root pass welding at stiffener D-S1, the ABF Engineer John Callaghan informed the QAI that

---

---

# WELDING INSPECTION REPORT

( Continued Page 2 of 2 )

---

---

he was in the way. The QAI relayed this information to the QAI Bill Levell. See the comments below. The QAI also wrote a non-conforming incident report documenting the preheat and post-heat temperature requirements. See the attached photos. This work was in progress at the end of the QAI's shift. The QAI Danny Reyes arrived and assumed the QAI duties.



## Summary of Conversations:

As noted above, the QAI had conversations with the QC Inspector Bernie Docena regarding the preheat and post-weld heat requirements as required in the Contract Special Provisions. The QAI was informed that ABF has no plan to maintain preheat temperature until welding is completed or for 3 hours after welding is complete. Also as noted above, the ABF Engineer John Callaghan informed the QAI that "he was in the way." The QAI relayed these conversations to the QAI Bill Levell. The QAI was informed that the non-conforming incident report will be addressed by the Engineer. The QAI also relayed the observations of OBG splice fit-up and welding to the QAIs Bill Levell, Rick Bettencourt and Danny Reyes. There were general discussions of the work schedule and the status of the OBG lifts 1E/2E field splice welding. 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 Materials for your project.

---

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

---