

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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013196**Date Inspected:** 20-Apr-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1100**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**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 (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 Lifts 3E/4E - plate C field splice welding
- 2) OBG Lifts 2E/3E - plate E back welding
- 3) OBG Lifts 3E/4E - plate B back gouging

1) The QAI observed ABF personnel welding plate C at OBG lifts 3E/4E field splice. The QAI noted that this vertical position (3G) complete joint penetration (CJP) weld is being made in segment C2. The QAI noted that the Quality Control (QC) Inspector Tom Pasqualone is monitoring this welding. The QAI observed ABF workers Mitch Sittinger, ID 0315, and Song Tao Huang, ID 3794, making the welds with gas shielded flux cored arc welding (FCAW-G). The QAI noted that the root passes have already been made and there were no observations of the fit-up by this QAI. The QAI noted that the weld is being made from 2360mm to 4678mm of the joint. See the attached photo. 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.

2) The QAI observed ABF personnel back welding plate E at OBG lifts 2E/3E field splice. The QAI noted that the overhead position (4G) CJP weld segments C1 and C2 are being completed after the backing bar has been removed. The QAI noted that the QC Inspector Jim Cunningham is monitoring this welding. The QAI observed

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ABF workers Jeremy Dolman, ID 5042 and Rory Hogan, ID 3186, making the welds with FCAW-G. The QAI was informed that 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.

3) The QAI observed ABF personnel grinding and back gouging the backing bar of CJP weld B1 at OBG lifts 3E/4E, after the outside portion of the weld has been completed. As the QAI was present, the QC Inspector Tom Pasqualone conducted magnetic particle testing (MT) on the back gouged groove and noted that additional grinding was needed before welding could continue. The QAI observed that several MT indications were visible within the groove (approximately 100mm long total length). The QAI relayed this information to the QAI Danny Reyes.

The QAI also noted that the 2nd shipment of OBG segments (lifts 5E, 6E, 5W, 6W and associated cross beams) is being unloaded from the ZPMC transport ship and the segments are being placed on the dock and assorted barges. See the attached photo. The QAI noted that the receiving inspection has not been performed at this time.



Summary of Conversations:

The QAI relayed the observations of OBG splice welding to the QAI Danny Reyes and the Lead QAI Bill Levell. The QAI also generated a shift turn-over report with this information. 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.

Inspected By: Croff, Scott

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer