

**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 #: 1x.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012814**Date Inspected:** 24-Mar-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1200**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:****CWI Name:** Steve McConnell**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 Sections**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 various welding operations.

The following observations were made:

- 1) Repairs were being performed to weld E2/E3-A4; welding personnel Mitch Sittinger was performing the welding with Quality Control personnel Steve McConnell present.
- 2) Quality Control Inspector Bonifacio Daquinag was monitoring the fit-up of E3/E4-A1 thru 5 while work was in progress.
- 3) Quality Control Inspector Jesus Cayabyab informed this QA Inspector weld E1/E2-F-1 had been visually inspected and rejected due to porosity.

This QA Inspector randomly observed QC Inspector Steve McConnell monitoring the welding of several repairs on weld E1/E2-A4. This QA Inspector observed welding personnel Mitch Sittinger # 0315 using the Shielded Metal Arc Welding (SMAW) process to fill two repair excavations. The QA Inspector observed QC Inspector Steve McConnell verify the SMAW the welding parameters; 130 amperes using a 3.2 mm diameter electrode. The QA Inspector randomly observed as QC Inspector Steve McConnell verified the temperature of base material was preheated to a temperature greater than 150 degrees F but less than the maximum interpass temperature of 400 degrees F using a temperature indicating marker. One repair was approximately 100 mm and the other was 420 mm in length. The work observed appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15-1000-Repair.

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This QA Inspector randomly observed QC Inspector Bonifacio Daquinag monitoring the fit up and SMAW welding being performed at weld joint E3/E4-A1 thru 5. The QA Inspector randomly observed welding personnel Jordan Hazelaar # 2135 and James Zhen # 6001 using the SMAW process to produce intermittent fillet welds on each side of joint bevel as QC Inspector Bonifacio Daquinag verified the fit up was within tolerance. See photo below. The QA Inspector randomly observed as QC Inspector Bonifacio Daquinag monitored the welding parameters of each welding personnel. Both welding personnel were observed using approximately 130 amperes and 3.2 mm diameter electrodes. The welding observed appeared to be within the parameters of WPS – ABF-WPS-D15-F1200A. The QA Inspector observed the fit up of the weld joint and observed the offset at E3/E4-A5 (adjacent to the side plate) appeared to exceed the allowable tolerance. QC Inspector Bonifacio Daquinag observed the QA Inspector measuring the offset at this area and verbally confirmed the offset was approximately 10 mm. QC Inspector Bonifacio Daquinag stated welding would not be performed where the fit up exceeded tolerance specifically specifying this area. Later in the shift the QA Inspector observed welding personnel James Zhen # 6001 using the SMAW process to deposit weld metal on the backing bar in what appeared to be a buttering weld to build up the area between the backing bar the bottom of the plate at E3/E4-A5 (adjacent to the side plate). See photo below. The QA Inspector observed QC Inspector Bonifacio Daquinag at the other end of the deck weld and asked if he was aware of the welding being performed at E3/E4-A5 (adjacent to the side plate) and he stated the welding personnel had informed him a Request For Information had been submitted previously this date addressing the issue and had been instructed by their supervisor to proceed with the welding prior to receiving an answer on the RFI. This QA Inspector contacted Shift Lead QA Inspector Danny Reyes and informed him of the observation and conversations noted above.



## 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 Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

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**Inspected By:** Hager, Craig

Quality Assurance Inspector

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**Reviewed By:**      Levell,Bill

QA Reviewer