

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-013948**Date Inspected:** 03-May-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:** Bernard Docena, 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:** SAS OBG 1W/2W-C, 3W/4W-A, 4E/5E**Summary of Items Observed:**

The Quality Assurance (QA) Inspector, Rick Bettencourt was on site at the job site between the times noted above.

The QA Inspector was on site to randomly observe the in process welding and inspection of the weld joints identified as 1W/2W- E, 3W/4W-A and 4E/5E and the following observations were made:

1W/2W-E1

The QA Inspector randomly observed the ABF welders had previously started the induction heating blankets to ensure the minimum required preheat of 150°F was achieved prior to welding. The QA Inspector randomly verified utilizing a 150°F temperature indicating marker and noted the minimum required preheat had been achieved. The QA Inspector noted the splice plates were removed in weld segment E1 to allow the FCAW machine to travel the full length of the weld joint. The QA Inspector observed the ABF welder to be utilizing a semi automated FCAW track system for welding the above identified weld joint. The QA Inspector randomly observed the SE QC Inspector identified as Bernard Docena set the FCAW machine to the parameters of the approved WPS. The QA Inspector randomly observed the FCAW parameters were 254 Amps, 24.1 Volts and a travel speed of 250mm/min. The QA Inspector randomly observed the ABF welder Song Toa Huang begin the FCAW fill pass, once the semi automated track system reached a certain point the ABF welder Huang Jin Quan would observe the welding arc for the remainder of the weld. The QA Inspector noted the ABF welders did not complete the weld segment E1 on the QA Inspectors shift.

3W/4W-A

The QA Inspector randomly observed the Smith Emery (SE) Quality Control (QC) Inspectors Steve McConnell and Tom Pasqualone begin performing ultrasonic testing (UT) of the above identified weld joint. The QA

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Inspector randomly observed the visual testing and the magnetic particle testing had been previously completed and accepted by the SE QC department. The QA Inspector noted the UT was in progress for the remainder of the QA Inspectors shift. The QA Inspector noted approximately 4 rejectable indications were located by the SE QC Inspectors identified above on the QA Inspectors shift.

4E/5E

Upon the arrival of the QA Inspector, it was observed the American Bridge/Fluor (ABF) erection crew had attached lift #5E for the east bound portion of the self anchored suspension (SAS) span. The QA Inspector randomly observed ABF pick lift #5E and set it on the temporary trestle. The QA Inspector noted the ABF erection personnel spent the remainder of the QA Inspector's shift pushing lift 5E down the trestle and toward OBG SAS lift 4E. The QA Inspector noted 5E was not pushed into the final position on the QA Inspectors shift. The QA Inspector randomly observed the ABF welding personnel preparing half of the weld joint on the 4E side by grinding and removing the paint on the surfaces to be welded. The QA Inspector spoke with the ABF welding Superintendent Dan Ieraci about the top deck plate transition welds (see summary of conversation). The QA Inspector noted no grinding or blending was performed on the transition welds from the underside of the top deck plate "A" on the QA Inspectors shift.

The QA Inspector spent the remainder of the shift updating the and recording the weld joints which have been completed, repairs which have been made, repairs that require welding and the overall progress of the ABF production welding. The QA Inspector observed all weld joints from 1W/2W, 2W/3W, 3W/4W and 1E/2E, 2E/3E, 3E/4E. The QA Inspector updated the production and QA NDT log and tracking chart.

Summary of Conversations:

The QA Inspector asked the ABF Welding Superintendent Dan Ieraci what the status of the top deck plate transition welds under the top deck plate at 4E/5E were. The QA Inspector elaborated and asked if the transitions had been ground and blended to allow the steel backing bar to be fit up with intimate contact with the top deck plate. Mr. Ieraci informed the QA Inspector do grinding or blending had been completed as of yet. Mr. Ieraci went on to inform the QA Inspector the transition areas will be ground and blended once the OBG 5E is within 3 or 4 feet from OBG 4E so they can be done simultaneously.

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:	Bettencourt,Rick	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
