

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 #: 1x.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026586**Date Inspected:** 29-Oct-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Onsite**CWI Name:** Pat Swain**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, Art Peterson arrived on 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 monitor the welding operations performed by American Bridge Fluor (ABF) welding personnel. The following observations were:

OBG Deck Plate Section 12W ~ 13W:

This QA Inspector randomly observed ABF welder Mr. Fred Kaddu (Welder ID 2188) performing the cover pass weld operation per the SMAW process in the (3G) Vertical position on I-Rib Longitudinal Stiffener (LS-6) on the inside of OBG Deck Plate Section 12W ~ 13W. At this location, the I-Rib LS is A709 GR. 485 material. This QA Inspector observed QC Inspector Mr. Pat Swain verify prior to the start of the welding operation that the welding parameters (Amps, Volts, and Travel Speed) and preheat temperature were in accordance with WPS -D1.5 1012-3 Revision 0. This QA Inspector verified that the 9018M electrodes being used to perform the cover pass weld operation were stored and removed from a heated quiver. This QA Inspector observed that ABF welder Mr. Kaddu completed only one side of the double V groove weld at this location. The heat induction blanket remained in place on the opposite side of the weld joint and the temperature of the weld and surrounding base metal were held at a temperature of 200 degrees F.

This QA Inspector randomly observed ABF welder Mr. Fred Kaddu (Welder ID 2188) setting up to perform the root pass welding per the SMAW process in the (3G) Vertical position on I-Rib Longitudinal Stiffener (LS-5) on the inside of OBG Deck Plate Section 12W ~ 13W. At this location the I-Rib LS is A709 GR. 485 material. This QA Inspector observed that ABF QC Inspector Mr. Tony Sherwood previously measured the offset between I-Rib

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LS plates and the offset measured was 3 mm. The thickness of LS-5 stiffener is 30 mm. The allowable offset tolerance at this location is 3 mm. This QA Inspector observed the use bridge clamps to hold the offset between the two I-Rib LS plates to within the 3 mm tolerance prior to the start of the root pass weld operation. ABF welder Mr. Kaddu placed the heat induction blanket across the weld joint to start the preheat operation and once the preheat temperature of 200 Degrees F was reached, Mr. Kaddu was ready to perform the root pass weld operation per the SMAW process in the (3G) Vertical position using 1/8" diameter 9018M electrode. This QA Inspector verified that the 9018M electrodes being used to perform the root pass weld operation were stored and removed from a heated quiver. This QA Inspector also observed QC Inspector Mr. Pat Swain verify prior to the start of the root pass weld operation that the welding parameters and preheat temperature were in accordance with WPS-D1.5 1012-3 Revision 0 on I-Rib LS-5. The root pass weld operation was partially completed along the 230 mm weld length of LS-5 and afterwards this QA Inspector observed ABF welder Mr. Kaddu remove the bridge clamps to complete the root pass weld operation for the full length of the weld joint. The root pass weld operation was in-process at the end of the QA Inspectors' shift and QC Inspector Mr. Pat Swain will stay at the location to monitor the completion of the root pass weld operation.



Summary of Conversations:

No reportable conversations were reportable on this date.

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 Nina Choy, 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By: Peterson, Art

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer
