

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: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-026592
Date Inspected: 28-Oct-2011

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 630
OSM Departure Time: 1530
Location: On site

CWI Name:	Tony Sherwood	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 11E / 12E:

This QA Inspector randomly observed ABF QC Inspector Mr. Pat Swain performing a preliminary ultrasonic test (UT) inspection of an excavated repair area on OBG deck plate section 11E / 12E at weld location A5 at "Y" Location 5190 mm Repair-2 (R-2). The thickness of the deck plate is 20 mm with steel backing to remain. The repair area was as follows: (25 mm wide; 75 mm length; and 20 mm in depth). This QA Inspector observed that Mr. Swain performed the ultrasonic inspection at the "Y" location 5140 mm ~ 5280 mm. The results of the preliminary ultrasonic inspection appeared to be in general compliance with AWS D1.5 - 2002 Table 6.3 and the contract specifications.

OBG Section 14W:

This QA Inspector observed ABF personnel erecting OBG Section 14W into position on the west bound lane of the Self-Anchored-Suspension (SAS) Bridge using the "Left Coast Lifter" Floating crane. This QA Inspector observed that OBG Section 14W was positioned to start the alignment operation with OBG Section 13W.

OBG Deck Plate Section 12W ~ 13W:

This QA Inspector randomly observed ABF welder Mr. Fred Kaddu (Welder ID 2188) performing the fit-up

WELDING INSPECTION REPORT

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operation of 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. Tony Sherwood measure the offset between the I-Rib LS and the results of the offset was 7 mm. The thickness of the LS stiffener at this location was 30 mm. The allowable offset tolerance at this location is 3 mm. Afterwards, this QA Inspector observed ABF welder Mr. Kaddu use bridge clamps to bring the offset between the two I-Rib LS's to within the 3 mm tolerance. 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. Sherwood verify that the welding parameters and preheat temperature were in general compliance with WPS-D1.5 1012-3 Revision 0 prior to the start of the root pass welding operation on LS-6. The root pass weld operation was partially completed along the 230 mm weld length of LS-6 and afterwards this QA Inspector observed 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. Sherwood will stay at the location to monitor the completion of the root pass weld operation.



Summary of Conversations:

No significant 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