

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-016156**Date Inspected:** 10-Aug-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1100**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job 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 Section**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 American Bridge/Fluor (ABF) welding operations.

The following observations were made:

- 1) At weld joint W5/W6-C2, inside the OBG section: ABF welding personnel Hau Qiang Hwang (#2930) was performing Flux Cored Arc Welding (FCAW). QC Inspector Tony Sherwood was present.
- 2) At weld joint W4/W5-C1, inside the OBG section: ABF welding personnel Song Tao Huang (#3794) was performing FCAW. QC Inspector Tony Sherwood was present.
- 3) At weld joint W1/W2 -D1, inside the OBG section: ABF welding personnel Fred Kakku (#2188) was using the Shielded Metal Arc Welding process to perform repair welding. QC Inspector Tom Pasqualone was present.
- 4) At weld joint W3/W4 - F, outside the OBG section: This QA Inspector observed QC personnel had completed their Ultrasonic Testing (UT) and had marked two areas for weld repair.
- 5) At weld joint W2/W3 - F, outside the OBG section: This QA Inspector observed QC personnel had completed their Ultrasonic Testing (UT) and had marked one area for weld repair.

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At weld joint W5/W6-C2, inside the OBG section this QA Inspector observed ABF welding personnel Hau Qiang Hwang (#2930) performing FCAW production welding using a Bug-O track system. This QA Inspector observed QC Inspector Tony Sherwood verify the following welding parameters: 243 amperes and 23 volts at a travel speed of 290 mm per minute. The welding observed appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15-3042-B1. This QA Inspector observed QC Inspector Tony Sherwood verify the minimum preheat at various times through the shift.

At weld joint W4/W5-C1, inside the OBG section this QA Inspector observed ABF welding personnel Song Tao Huang (#3794) was performing FCAW adjacent to weld joint "B" where the track system could not be used. This QA Inspector observed QC Inspector Tony Sherwood verify the following welding parameters: 244 amperes and 23 volts at a travel speed of 280 mm per minute. This QA Inspector monitored the travel speed later in the shift and verified it to be 288 mm per minute. The welding was not being performed using the track system and the travel speed was within the range specified on the WPS. The welding observed appeared to comply with ABF-WPS-D15-3042-B1.

At weld joint W1/W2 -D1, inside the OBG section this QA Inspector observed ABF welding personnel Fred Kakku (#2188) was using the SMAW process to perform repair welding. QC Inspector Tom Pasqualone was present and monitoring the welding parameters. This QA Inspector verified the following welding parameters: 140 amperes using a 3.2 mm 7018 electrode in the flat position. The welding observed appeared to comply with ABF-WPS-D15-1001-Repair. This QA Inspector observed it appeared the area currently being welded had previously been repaired due to the markings adjacent to the weld. QC Inspector Tom Pasqualone verbally confirmed the repair welding was a second time repair (R-2).

This QA Inspector had previously observed QC Inspector Steve McConnell performing Ultrasonic Testing (UT) at the following locations: weld joint W3/W4 - F, outside the OBG section and weld joint W2/W3 - F, outside the OBG section. Later in the shift this QA Inspector visually observed weld joint W3/W4 - F had been marked indicating two areas had been rejected and weld joint W2/W3 - F had been marked indicating one area had been rejected. This QA Inspector later verbally confirmed this with QC Inspector Steve McConnell.

In general the work observed appeared to comply with the contract requirements.

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.

Inspected By:	Hager,Craig	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
