

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017281**Date Inspected:** 04-Oct-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 joints E6/E7 – A1, outside the OBG section: QC Inspector Steve McConnell had marked two transverse Ultrasonic Testing (UT) indications for weld repair. Please see below for details.
- 2) At weld joints W5/W6 – D1 and D2, outside the OBG section: QC Inspector Jesus Cayabyab was performing UT using a straight beam transducer to lay out the location of the welds for various open and closed ribs adjacent to this weld prior to the start of shear wave inspection.
- 3) At weld joints E6/E7 – C1 and C2, outside the OBG section: ABF welding personnel Rory Hogan (#3186) and Jeremy Dolan (#50427) had completed back gouging and were using grinders to clean the excavation.
- 4) At weld joint W4/W5 – D2, outside the OBG section: ABF welding personnel Fred Kaddu (#2188) was performing repair welding using the Shielded Metal Arc Welding (SMAW) process. QC Inspector Tony Sherwood was present and monitoring the work.
- 5) At OBG section E2, ABF welding personnel James Zhen (#6001) was using a power grinder to bevel the edge

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

of the access plate in preparation for weld joint; L2E-SE.

At weld joints E6/E7 – A1, outside the OBG section this QA Inspector observed QC Inspector Steve McConnell performing UT. This QA Inspector observed the transducer, wedge angle, scanning techniques and screen signals appeared to comply with the contract contracts. This QA Inspector observed Lead QC Inspector Leonard Cross was present while QC Inspector Steve McConnell scanned an area of weld A1 and marked two transverse indications on the face of the weld for repair. This QA Inspector observed one defect was marked 510 mm from weld joint “B”, with a total length of 50 mm; 30 mm of the length appeared to be in the weld area and 20 mm outside the weld area onto the base material, the depth was marked as being 13 mm. The other defect was marked 575 mm from weld joint “B”, with a total length of 20 mm (centered inside the weld area) and a depth of 15 mm. Lead QC Inspector Leonard Cross stated several other UT technicians such as Tom Pasqualone and Jesus Cayabyab had previously inspected the area and had basically the same indications.

At weld joints W5/W6 – D1 and D2, outside the OBG section this QA Inspector observed QC Inspector Jesus Cayabyab was performing UT using a straight beam transducer to lay out the location of the welds for the various open and closed ribs. The open and closed rib welds which are perpendicular to this weld are very close to the overall length of the scanning distance needed to perform the angle beam or shearwave inspection of welds D1 and D2. QC personnel have been scanning from the outside surface and marking the locations of these welds as an aid during the angle beam inspection.

At weld joints E6/E7 – C1 and C2, outside the OBG section this QA Inspector observed ABF welding personnel Rory Hogan (#3186) and Jeremy Dolan (#50427) had completed back gouging with the plasma arc torch and using grinders to clean the excavation.

At weld joint W4/W5 – D2, outside the OBG section this QA Inspector observed ABF welding personnel Fred Kaddu (#2188) using a grinder to excavate an area for weld repair. This QA Inspector observed the final excavation area was approximately 240 mm in length, 16 mm side and 15 mm deep. The excavation started at the adjacent “E” weld and continued for 240 mm. This QA Inspector observed QC Inspector Tony Sherwood perform and accept a visual and Magnetic Particle Testing (MT) on the final excavation area prior to welding. This QA Inspector performed a visual verification and the work appeared to comply with the contract requirements. This QA Inspector observed as QC Inspector Tony Sherwood verified the following SMAW welding parameters; 122 amperes using a 3.2 mm diameter E7018H4R electrode. The welding observed appeared to comply with ABF-WPS-D15-1001 Repair.

At OBG section E2, this QA Inspector observed ABF welding personnel James Zhen (#6001) using a power grinder to bevel the edge of an access plate identified as L2E-SE. Welding at this location was not observed during this QA Inspector’s shift.

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.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

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