

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-019830**Date Inspected:** 21-Jan-2011**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 9E/10E –F, outside the OBG section: ABF welding personnel Hua Qiang Hwang (#2930) was performing production welding using the Shielded Metal Arc Welding (SMAW) process. QC Inspector Tony Sherwood was monitoring the work.

2) At weld joint 9E/10E –B, outside the OBG section: ABF welding personnel Xiao Jian Wan (#9677) was performing production welding using the SMAW process. QC Inspector Tony Sherwood was monitoring the work.

3) At weld joint 9E/10E –A1, A3 and A4, outside the OBG section this QA Inspector observed Wai Kitlai (#2953) performing repair welding using the SMAW process. QC Inspector Jesus Cayabyab was monitoring the work.

At weld joint 9E/10E –F, outside the OBG section this QA Inspector observed ABF welding personnel Hua Qiang Hwang (#2930) was performing production welding using the SMAW process. This QA Inspector randomly observed as QC Inspector Tony Sherwood verified the following welding parameters: 126 amperes using a 3.2 mm diameter E7018H4R electrode. The work observed appeared to comply with Welding Procedure Specification

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(WPS) ABF-WPS-D15-1040B-Rev-1 and the contract requirements.

At weld joint 9E/10E –B, outside the OBG section this QA Inspector observed ABF welding personnel Xiao Jian Wan (#9677) was performing production welding using the SMAW process. This QA Inspector randomly observed as QC Inspector Tony Sherwood verified the following welding parameters: 132 amperes using a 3.2 mm diameter E7018H4R electrode. The work observed appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15-1040B-Rev-1 and the contract requirements.

At weld joint 9E/10E –A1, A3 and A4, outside the OBG section this QA Inspector observed Wai Kitlai (#2953) performing repair welding using the SMAW process. QC Inspectors Jesus Cayabyab and Tony Sherwood were monitoring the work. This QA Inspector observed the excavations as noted for repair welding at the following locations:

A-1, Y-840, 135 mm long and 14 mm deep
A-1, Y-4240, 110 mm long and 15 mm deep
A-3, Y-150, 120 mm long and 14 mm deep
A-3, Y-530, 120 mm long and 14 mm deep
A-3, Y2560, 90 mm long and 16 mm deep
A-3, Y-2950, 100 mm long and 16 mm deep
A-3, Y-3910, 90 mm long and 14 mm deep
A-3, Y4350, 100 mm long and 14 mm deep
A-3, Y-4700, 110 mm long and 14 mm deep
A-4, Y-710, 100 mm long and 14 mm deep
A-4, Y940, 120 mm long and 13 mm deep

This QA Inspector randomly observed as ABF welding personnel Wai Kitlai (#2953) and/or James Zhen (#6001) used a grinder to excavate the defect at the locations noted above. Periodically QC Inspector Jesus Cayabyab would perform the grinding in a effort to assist with visual verification of finding the defects. This QA Inspector randomly observed either QC Inspector Tony Sherwood or Jesus Cayabyab perform Magnetic Particle Testing (MT) on the excavation areas prior to welding to confirm sound metal. This QA Inspector randomly observed as ABF welding personnel Wai Kitlai (#2953) used a gas torch to preheat the excavation areas and surrounding base metal prior to welding. This QA Inspector randomly observed as either QC Inspector Tony Sherwood or Jesus Cayabyab verified the preheat temperature was greater than 150°F using an electronic temperature gauge. This QA Inspector verified the following welding parameters; 132 amperes using a 3.2 diameter E7018H4R electrode. The work observed appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15-1001-Repair and 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 Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

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Inspected By: Hager,Craig

Quality Assurance Inspector

Reviewed By: Levell,Bill

QA Reviewer