

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-018246**Date Inspected:** 18-Nov-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** See below**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:** SAS OBG**Summary of Items Observed:**

The Quality Assurance (QA) Inspector, Rick Bettencourt was on site at the job site between the times noted above. The QA Inspector was on site to randomly observe the in process welding and inspection of the weld joints identified as 3E-pp19.5-E5-NW, 6E-pp46.5-E2-SE, 2E-pp17-E3-3, 3E-pp22-E3-2, 4E-pp25-E4-2 and the following observations were made:

3E-pp19.5-E5-NW

The QA Inspector randomly observed the ABF QC Inspector identified Mick Chan was excavating the ultrasonic testing rejects previously located by the SE QC Inspector Steve McConnell. The QA Inspector noted 6 UT rejects were located in the complete joint penetration groove weld. The QA Inspector noted the ABF welder was performing the excavations utilizing a burr bit grinder for the entire shift. The QA Inspector noted no welding was performed on this date.

6E-pp46.5-E2-SE

The QA Inspector randomly observed the American Bridge/Fluor (ABF) welder James Zhen setting up to continue performing the shielded metal arc welding (SMAW) back weld. The QA Inspector previously performed random visual testing and dimensional verification of the bevel angle and root opening of the above identified fit up. The QA Inspector randomly observed the fit up appeared to be in general compliance with ABF-WPS-D1.5-1030. Upon the arrival of the QA inspector, it was noted the SMAW 4G back weld appeared to be approximately 10% complete. The QA Inspector randomly observed the SE QC Inspector Steve McConnell was on site monitoring the in process welding. The QA Inspector randomly observed the SMAW parameter were 125 Amps while utilizing 1/8" E7018 low hydrogen electrodes. The QA Inspector noted the SMAW parameters appeared to be in general

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compliance with the contract requirements.

2E-pp17-E3-3

The QA Inspector randomly observed the ABF welder Earl Espinoza performing grinding tasks of ultrasonic testing reject in the above identified lifting lug deck hole restoration. The QA Inspector randomly observed the ABF welder had previously excavated the UT rejection located in the above identified hole. The QA Inspector noted the weld repair approximately 20% complete upon the arrival of the QA inspector in AM. The QA Inspector randomly observed the SE QC Inspector John Pagliero was on site to monitor and record the in process welding parameters. The QA Inspector noted the ABF welder was utilizing the shielded metal arc welding process with 1/8" E7018 low hydrogen electrodes in the 4G position under the top deck plate. The QA Inspector randomly observed the ABF welder was utilizing 125 Amps while performing the SMAW repair. The QA Inspector performed a random visual inspection of the previously excavated areas and noted they had been ground and blended to weldable profile. The QA Inspector randomly observed and noted the ABF welder was preheating the material to approximately 100°F prior to making the SMAW repairs. The QA Inspector noted the SMAW repairs appeared to be in general compliance with ABF-WPS-1001 repair. The QA Inspector noted the repair welding was not completed on the QA Inspectors shift.

3E-pp22-E3-2

The QA Inspector randomly observed the ABF welder identified as Darcel Jackson performing grinding tasks on the above identified back gouged weld joints. The QA Inspector randomly observed the Smith Emery (SE) Quality Control (QC) Inspector John Pagliero perform magnetic particle testing several times in an attempt to clear or accept the back gouged weld joint. The QA Inspector randomly observed the back gouged weld joint and noted several MT indications were present and additional grinding would be required. After the grinding was completed the QA Inspector noted the MT indications had been cleared and the back gouged weld joint was accepted by the QC Inspector John Pagliero. The QA Inspector noted the ABF welder began setting up to perform the SMAW 4G back weld. The QA Inspector noted no welding was performed on this date.

4E-pp25-E4-2

The QA Inspector randomly observed the ABF welder identified as Salvador Sandoval performing grinding tasks on the above identified back gouged weld joints. The QA Inspector randomly observed the Smith Emery (SE) Quality Control (QC) Inspector John Pagliero perform magnetic particle testing several times in an attempt to clear or accept the back gouged weld joint. The QA Inspector randomly observed the back gouged weld joint and noted several MT indications were present and additional grinding would be required. After the grinding was completed, and the weld was re-tested the QA Inspector noted the MT indications had been removed and the back gouged weld joint appeared to be acceptable. The QA Inspector randomly observed the ABF welder begin performing the SMAW back weld for both of the above identified weld joints. The QA Inspector noted the base metal and the weld joint were preheated to approximately 100°F and back welding was commenced. The QA Inspector randomly observed the ABF welder to be utilizing 1/8" E7018 low hydrogen electrodes with 132 Amps. The QA Inspector noted the SMAW back welds were continued from the previous day shift completed on the QA Inspectors shift on this date. The QA Inspector randomly observed the ABF welder begin performing grinding tasks in an attempt to remove and grind the weld reinforcement flush with the base material.

The QA Inspector spent the remainder of the shift updating the NDT tracking and production welding status logs

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for all in process and completed ABF production welding and repair welding.

Summary of Conversations:

No pertinent conversation noted.

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:	Bettencourt,Rick	Quality Assurance Inspector
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Reviewed By:	Levell,Bill	QA Reviewer
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