

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:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026324**Date Inspected:** 20-Sep-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** John Pagliero**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, 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 monitor American Bridge/Fluor (ABF) welding operations. This Quality Assurance (QA) Inspector, Craig Hager observed the following.

Self Anchored Suspension (SAS) Tower, Electro Slag Welding (ESW):

ESW weld location A-face A: This QA Inspector observed ABF welding personnel Jeremy Dolman (# 5042) between the 3-meter to 9-meter elevation using a grinder to remove the temporary welds that held the strong backs for the ESW process. This QA Inspector also observed it appeared QC personnel had previously completed the Magnetic Particle Testing (MT) of shallow excavations and observed ABF welding personnel Jeremy Dolman (# 5042) using the Shielded Metal Arc Welding process to fill shallow excavations in the weld. This QA Inspector performed a random visual verification and that it appeared the excavations were less than 12 mm deep. This QA Inspector observed ABF welding personnel Jeremy Dolman (# 5042) use a gas torch to preheat areas prior to welding and use a temperature indicating marker to verify the preheat temperature was greater than 300°F. This QA Inspector observed QC Inspector John Pagliero verify the following welding parameters; 118 amperes. This QA observed a 3.2 mm diameter E7018H4R electrode was being used. The welding observed this date appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15-1000 Repair.

ESW weld location L -face A: This QA Inspector randomly observed QC inspection personnel Steve McConnell and John Pagliero performing visual and MT inspections in a effort to clear various areas that he been marked for

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grinding and ground by various ABF personnel. This QA Inspector observed the technique being used to perform the MT appeared to comply with the contract requirements.

ESW weld location R -face A: This QA Inspector observed ABF welding personnel Richard Garcia (#5892) using the SMAW process at repair weld location Y-1400 to Y-1740. This QA Inspector observed the original excavation was documented on the adjacent base metal as being 330 mm long, 55 mm wide and 20 mm deep. This QA Inspector observed the excavation was approximately 50% filled. This QA Inspector the induction heating equipment was positioned on the outside (face B) of the weld for preheating. This QA Inspector also randomly observed ABF welding personnel Richard Garcia (#5892) using a gas torch to preheat the adjacent base materials due to the configuration of the weld joint. This QA Inspector observed a temperature indicating marker was used to verify the minimum preheat temperature of 400°F obtained. This QA Inspector observed QC Inspector John Pagliero verify the following welding parameters; 120 amperes. This QA observed a 3.2 mm diameter E7018H4R electrode was being used. The welding observed this date appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15-1000 Repair and a directive QC personnel had from QC Manager Jim Bowers specifying a 400°F preheat and post weld heat treatment to be used when welding was completed.

ESW weld location B -face B: This QA Inspector observed ABF welding personnel Rory Hogan (# 3186) performing SMAW between the 9-meter and 13-meter elevation to fill shallow excavations which appeared to have been previously inspected using the MT method and cleared by various QC inspection personnel. This QA Inspector performed a random visual verification and observed the excavations appeared to be less than 12 mm in depth. This QA Inspector observed QC Inspector John Pagliero verify the following welding parameters; 120 amperes. This QA observed a 3.2 mm diameter E7018H4R electrode was being used. The welding observed this date appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15-1000 Repair.

Summary of Conversations:

This QA Inspector had general conversations with American Bridge/Fluor (ABF) and Caltrans personnel during this shift. Except as described above and noted above there were no notable conversations.

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