

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-026490**Date Inspected:** 05-Oct-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Pat Swain**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.

Orthotropic Bridge Girder (OBG) Sections:

12W/13W A1 thru A5: This QA Inspector observed ABF welding personnel Wai Kitlai (#2953) using the Flux Cored Arc Welding process at the end of section A-5. The welding was to fill approximately the last 430 mm of the weld joint at this location. This QA Inspector randomly observed as QC Inspectors Pat Swain and Tony Sherwood verify the following welding parameters; 250 amperes and 21.5 volts at a travel speed of 325 mm per minute to produce a heat input of 0.99 Kj per mm. This QA Inspector observed after welding was completed at this end ABF welding personnel Wai Kitlai (#2953) moved to the A-1 section and was performing FCAW to fill the first 1000 mm of weld groove. This QA Inspector randomly observed as QC Inspector Tony Sherwood verified the preheat temperature with an electric temperature gauge prior to the start of welding. The welding observed appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15-3040-A1. This QA Inspector observed various ABF personnel setting up the Submerged Arc Welding (SAW) equipment including the track and cable system, see photo below. This QA Inspector was informed by ABF welding foreman Danny Ieraci (#3232) at approximately 0900 hours that ABF had ordered a Flux Oven to bake the Submerged Arc Welding (SAW) flux, but that the oven had not arrived as of this time and date therefore welding using the SAW process not anticipated this date. This QA Inspector observed at approximately 1430 hours this date that the SAW

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

flux oven appeared to have arrived and was setting on a West Bound OBG section close to the 12W/13W splice. This QA Inspector did not observe SAW this date.

8E-PP71-E5 NW Access Hole: This QA Inspector observed that welding had been completed from the bottom (inside the OBG section) at this location and that back gouging was started this date from the top side using a carbon arc process. This QA Inspector observed after the carbon arc process ABF personnel were using a hand held grinder to remove the carbon deposits and contour the groove for welding, see photo below.

11E-PP100-E3 Lifting Lug Hole #2 and # 4: This QA Inspector randomly observed ABF welding personnel Fred Kaddu (#2188) using the Shielded Metal Arc Welding (SMAW) process in the overhead (4G) position. This QA Inspector observed QC Inspector Fred Von Hoff was monitoring the welding at this location. QC Inspector Fred Von Hoff informed this QA Inspector had previously performed and accepted the Magnetic Particle Testing (MT) on the back gouged section of the weld. QC Inspector Fred Von Hoff also informed this QA Inspector the welding parameters were 137 amperes. The welding observed appeared to comply with ABF-WPS-D15-1050A-CU.

This QA Inspector verbally informed QA SPCM Lead Inspector, Daniel Reyes, of the issues noted in this report for compliance therefore for further details of issues of significance see QA SPCM Lead Inspector, Daniel Reyes, Daily Inspection Report (6031) for this date.

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.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Inspected By: Hager, Craig

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer