

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-028864**Date Inspected:** 15-Dec-2012**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:** Barry Drake and Fred Michels**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:**

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At OBG 13W-PP120-W2.0 FB1, QA randomly observed ABF/JV welder Rick Clayborn continuing to perform CJP groove welding repair on a Seismic Performance Critical Member (SPCM) due to Ultrasonic Testing (UT) detected defect on welded butt joint. The welder preheated the repair area and its vicinity using propylene gas torch prior excavation and then ground smooth the groove of the excavation. The welder was noted using propylene gas torch to preheat the repair area and its vicinity and as soon as the required temperature was attained the welder started performing the welding repair. The repairs listed below were being welded per Request for Weld Repair (RWR) #201211-024 to #201211-027. Welder Rick Clayborn was observed manually welding in 2G (horizontal) position utilizing Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E7018H4R electrode implementing Caltrans welding procedure ABF-WPS-D15-1004 Repair. During welding, ABF QC Barry Drake was noted monitoring the welder's welding parameter with measured working current of 126 amperes on the 3.2mm diameter E7018H4R electrodes. At the end of the shift, repair welding at location listed below was welded as stated; 1) Y=280 L80 x W20 x D10 repair completed; 2) Y=345 L80 x W30 x D15 repair completed; 3) Y=190 L100 x W25 x D14 repair in-progress and Y=20 L135 x W20 x D16 excavated.

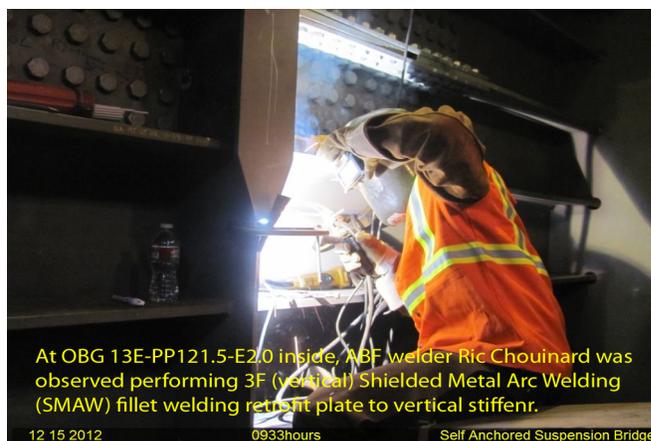
At OBG 13E-PP120-E2.0 inside, QA randomly observed ABF/JV qualified welder Ric Chouinard perform 6mm fillet welding on both sides of 800mm long x 175mm wide x 12mm thick retrofit plate. The welder was noted fillet welding in 3F (vertical) position using Shielded metal Arc Welding (SMAW) with 3.2mm diameter E7018H4R

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

electrode implementing Caltrans welding procedure ABF-WPS-D15-F1200A. The plate being welded is a retrofit plate welded to a vertical stiffener per Caltrans approved drawing ABF/Fluor Sheet #X2007-01. The welding activity was monitored by ABF QC Fred Michels. During the shift, the welder has completed the 6mm fillet weld on both sides of the retrofit plate.

At OBG 13E-PP120-E2.0 architectural housing, this QA randomly observed perform production welding on the stiffener of the housing manway. ABF welder Erick Sparks was observed welding in 2G position utilizing SMAW with 3.2mm diameter E7018H4R electrode. The welder has tack welded the infill plate stiffener but the plate was short creating an excessive opening as shown on the attached photograph. This QA has informed the welder and the QC to verify the use of the short plate since the West side was welded with no wide opening. Since there was no approved drawing as reference to the task being made, the welder still insisted to perform the welding on one side per the direction of the Superintendent Scott Smith. This QA has found the fit up of the infill plate deemed unacceptable due to the excessive opening of 32mm as shown. Due to this finding, an Incident Report was initiated.



Summary of Conversations:

No significant conversation today.

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 SMR Gary Thomas (916) 764-6027, who represents the Office of Structural

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Materials for your project.

Inspected By: Lizardo, Joselito

Quality Assurance Inspector

Reviewed By: Reyes, Danny

QA Reviewer