

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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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-028602
Date Inspected: 17-Oct-2012

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:	William Sherwood and Bernie Do			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 12E-E2.1-@31000mm corner drop-in side plate 'C' outside, QA randomly observed ABF/JV qualified welder Ric Chouinard perform CJP groove welding repair from location Y=30mm to Y=1000mm. The welder was observed welding in the 4G (overhead) position utilizing Shielded Metal Arc Welding (SMAW) with 3.2mm diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1004-Repairs. This repair has been excavated and being welded with Caltrans approved Request for Weld Repair (RWR) #201210-013. The repair excavation of 960mm long x 42mm wide x 11mm deep was excavated using carbon air arc gouging with preheat temperature of more than 225°F using propylene gas torch prior excavation. The groove of the excavation was ground smooth and tested by ABF QC William Sherwood using Magnetic Particle Testing (MT). During welding repair, the repair area and its vicinity were preheated to more than 325 degree Fahrenheit using Miller Proheat 35 Induction Heating System with the heater blanket put in place on top of the side plate prior/during welding. During the shift, ABF QC William Sherwood was noted monitoring the welder with measured working current of 135 amperes on 3.2mm E7018H4R electrode. Due to some welding activity that was ongoing on other part of the OBG, the welding observation for this particular repair was turned over to fellow QA Fritz Belford.

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At OBG 2W-PP-13.5-W2-N deck access hole outside, QA randomly observed ABF/JV qualified welder Jin Quan Huang continuing to perform CJP groove welding repair. The welder was observed welding in the 4G (overhead) position utilizing Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1001-Repairs. The repair excavation was preheated to more than 150 degree Fahrenheit using propane gas torch prior welding. During the shift, ABF QC Salvador Merino was noted monitoring the welder. Prior welding, ABF QC Salvador Merino was also observed performing Magnetic Particle Testing (MT) on the repair excavations prior welding repair. There were no significant defects noted during the test. After completing the repair from the outside, the welder went underneath and performed the excavation then back welded the repair. The following first time repair was noted excavated and welded during the shift;

Y-location Length Width Depth Remarks

1. 1955mm 100mm 30mm 12mm R1 – completed.

At Tower elevation 131 meter, this QA randomly observed ABF/JV qualified welder Richard Garcia continuing to perform 4G (overhead) position Partial Joint Penetration (PJP) welding 6mm bent plate butt joint per Request for Information ABF-RFI-002642R01 dated December 6, 2011. The RFI pertains to the modification of the Tower Lift 4 Façade Seal Elevator interference. The welder was noted implementing the Option #3 and detail #3 of the RFI's attachment.

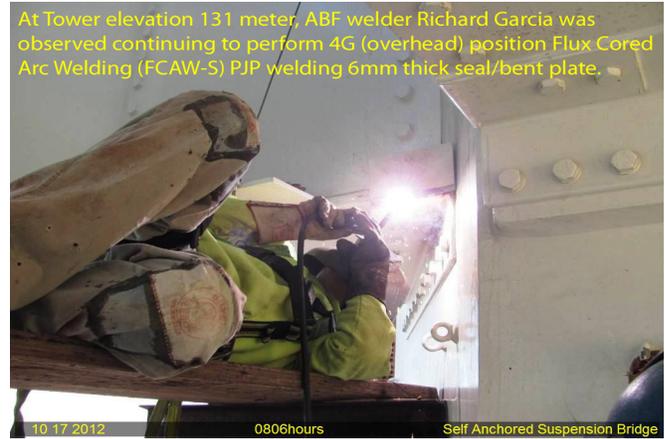
During welding, the welder was observed manually welding in 2G (horizontal) position utilizing self-shielded Flux Cored Arc Welding (FCAW-S) with 0.035" diameter E71T-11 wire electrode implementing Caltrans approved welding procedure ABF-WPS-D11-2044. ABF QC Bernie Docena was noted on site monitoring the welder and his welding parameters with measured working current of 80 amperes and 16 volts. At the end of the shift, two bent plates modification were done at north and west shafts of the Tower at elevation 131 meter. After completing two seal/bent plates, the welder was pulled out and went to W2 and welded temporary attachments for the erection of false work for the hinge pipe. The remaining modification of the same bent plates at higher elevation will continue tomorrow.

FW Spencer:

At OBG location Panel Point PP42, Tower elevation 53 meter, this QA randomly observed FW Spencer qualified welder Damian Llanos continuing to perform Complete Joint Penetration (CJP) 6G (all position) Shielded Metal Arc Welding (SMAW) welding root pass to cover pass on 2" diameter domestic utility water line. The welder was noted welding the root pass with 3/32" diameter E6010 electrode and followed by fill pass to cover pass using 3/32" diameter E7018H4R electrode implementing Caltrans approved procedure FW Spencer WPS 1-12-1. The welder was noted preheating and removing the moisture of the joint using a portable propane gas torch prior welding. During welding, ABF QC Steve Jensen was noted monitoring the parameters of the welder. At the end of the FW Spencer shift, CJP welding on only one 2" diameter utility water line pipe butt joint tie-in was completed.

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Summary of Conversations:

No significant conversation occurred 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 Materials for your project.

Inspected By: Lizardo, Joselito

Quality Assurance Inspector

Reviewed By: Reyes, Danny

QA Reviewer