

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-026644
Date Inspected: 04-Nov-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:	Bernie Docena and Salvador Merino			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.

QA randomly observed ABF/JV qualified welders Rory Hogan (ID #3186) and Jeremy Dolman (ID #5042) perform CJP groove back welding cover pass on Orthotropic Box Girder (OBG) 12W/13W bottom plate 'D1' outside. The welders were observed simultaneously welding in the 4G (overhead) position utilizing dual shield Flux Cored Arc Welding (FCAW-G) with E71T-1M, 1/16" diameter wire electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-3110-4. Each welder was using a track mounted welder holder assembly that was remotely controlled. The joint being welded has the backing bar gouged using the Esab Plasma Arc machine and was ground smooth. The gouged and ground splice butt joint was also Non Destructive Testing (NDT) tested using the Magnetic Particle Testing (MT). The splice joint was preheated to greater than 200 degrees Fahrenheit using Miller Proheat 35 Induction Heating System with the heater blankets located on top of the plate prior welding and maintained by moving the heater blanket at the side of the plate being welded during welding. The vicinity was properly protected from wind. During welding, ABF Quality Control (QC) Bernie Docena was noted monitoring the welding parameters of the welder. At the end of the shift, cover pass welding was completed.

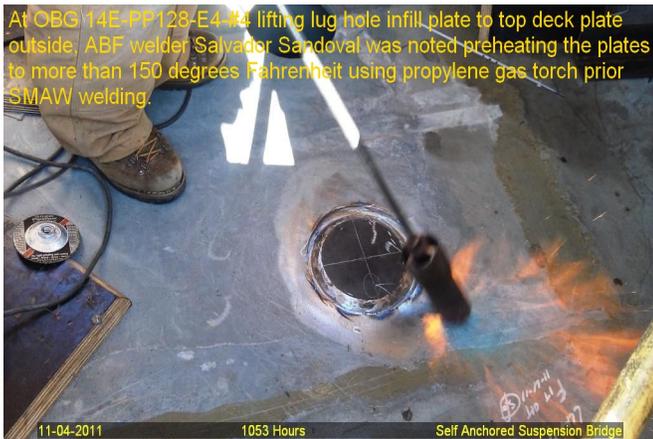
At OBG 14E-PP128-E3-# 2 lifting lug hole infill plate to top deck plate outside, ABF welder Richard Garcia was observed continuing to perform 1G SMAW welding fill pass to cover pass on the infill plate to top deck plate butt joint. The welder was noted using 1/8" diameter E7018H4R for root pass then switched to 5/32" diameter

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E7018H4R electrode for the fill to cover passes. The welder was noted implementing Welding Procedure Specification (WPS) ABF-WPS-D15-1050A-CU for the Seismic Performance Critical Members (SPCM) butt joint. Prior welding, ABF QC Salvador Merino was observed inspecting the fit up of the butt joint. QA verified the fit up alignment of the lifting lug hole which deemed acceptable to the contract requirements. During welding, ABF QC Salvador Merino was noted monitoring the welder's welding parameters with measured working current of 130 amperes on the 1/8" electrode while 185 amperes on the 5/32" electrode. During the shift, cover pass welding on the top side location of the butt joint was completed.

At OBG 14E-PP128-E4-# 4 lifting lug hole infill plate to top deck plate outside, ABF welder Salvador Sandoval was observed continuing to perform 1G SMAW welding fill pass to cover pass on the infill plate to top deck plate butt joint. The welder was noted using 1/8" diameter E7018H4R for root pass then switched to 5/32" diameter E7018H4R electrode for the fill to cover passes. The welder was noted implementing Welding Procedure Specification (WPS) ABF-WPS-D15-1050A-CU for the SPCM butt joint. Prior welding, ABF QC Salvador Merino was observed inspecting the fit up of the butt joints. QA verified the fit up alignment of the lifting lug hole which deemed acceptable to the contract requirements. During welding, ABF QC Salvador Merino was noted monitoring the welder's welding parameters with measured working current of 123 amperes on the 1/8" electrode while 180 amperes on the 5/32" electrode. During the shift, cover pass welding on the top side location of the butt joint 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 Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Lizardo, Joselito	Quality Assurance Inspector
Reviewed By:	Levell, Bill	QA Reviewer
