DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-026645
Date Inspected: 05-Nov-2011

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1530
Location: Job Site

CWI Name: Fred Von Hoff and Bernie Docena

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:

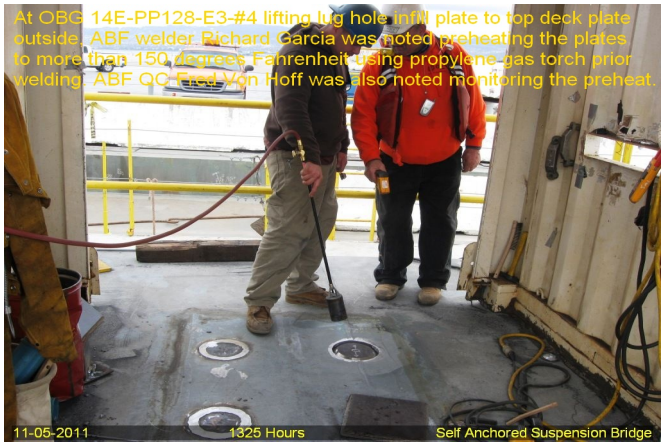
Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

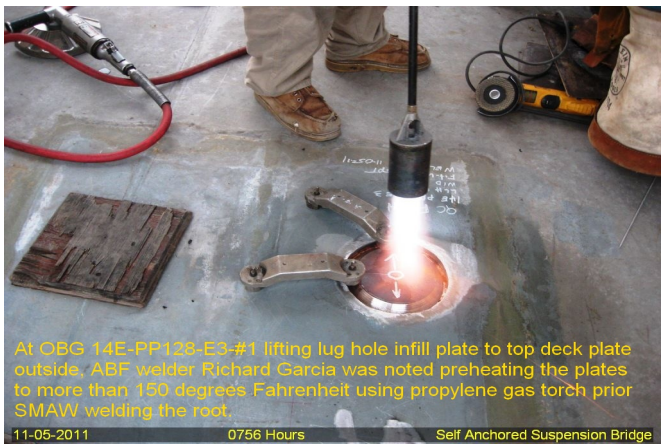
At OBG 14E-PP128-E3-# 1 lifting lug hole infill plate to top deck plate outside, ABF welder Richard Garcia was observed continuing to perform 1G SMAW welding fill pass to cover pass on the infill plate to top deck plate butt joint. The welder was noted using 1/8” diameter E7018H4R for root pass then switched to 5/32” diameter 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 Fred Von Hoff 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 Fred Von Hoff 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. The welder was noted preheating the plates to more than 150°F using propylene gas torch prior welding. During the shift, cover pass welding on the top side location of the butt joint was completed and the welder has moved to other lifting lug hole #4 of the same panel point location. At the new location, the welder did the fit up and ABF QC Fred Von Hoff performed the alignment check. This QA also verified the alignment with positive result. After the acceptance of the fit up alignment the welder resumed welding the root pass and fill pass and continued until the end of the shift.

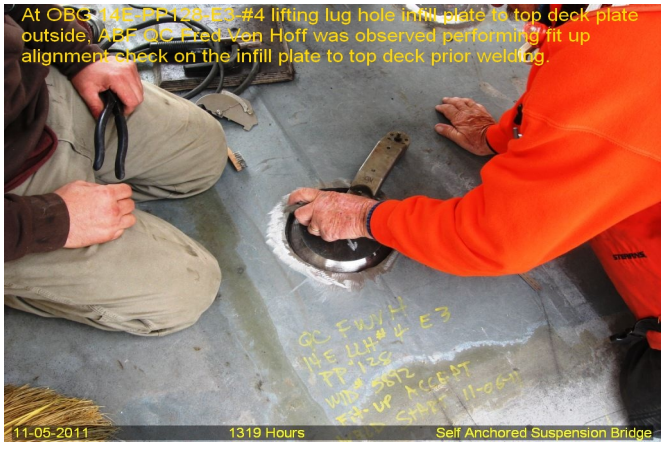
At OBG 14E-PP128-E4-# 3 lifting lug hole infill plate to top deck plate outside, ABF welder Salvador Sandoval was observed continuing to perform 1G SMAW welding fill pass to cover pass on the infill plate to top deck plate

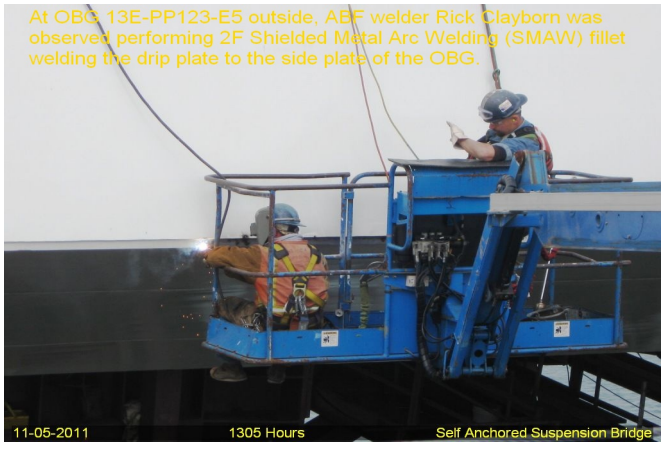
butt joint. The welder was noted using 1/8” diameter E7018H4R for root pass then switched to 5/32” diameter E7018H4R electrode for the fill to cover passes. The welder was noted implementing Welding Procedure Specification (WPS) ABF-WPS-D15-1050A-CU for the SPCM butt joint. Prior welding, ABF QC Fred Von Hoff 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 Fred Von Hoff 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. The welder was noted preheating the plates to more than 150°F using propylene gas torch prior welding. During the shift, cover pass welding on the top side location of the butt joint was completed and the welder has moved to other lifting lug hole #2 of the same panel point location. At the new location, the welder did the fit up and ABF QC Fred Von Hoff performed the alignment check. This QA also verified the alignment with positive result. After the acceptance of the fit up alignment the welder resumed welding the root pass and fill pass and continued until the end of the shift.

At OBG 14E side plate ‘E’ outside, QA randomly observed ABF welder Rick Clayborn perform fillet and partial joint penetration (PJP) welding in 2F/2G position using Shielded Metal Arc Welding (SMAW) with 1/8” diameter E7018H4R electrode. The welder was welding on 2 ¼” wide x 3/8” thick drip plate to the side plate of the OBG at panel point PP123. The drip plate and the surface of the side plate (where the drip plate was welded) were noted ground and the paint coating removed. ABF QC Bernie Docena was noted monitoring the welding and its parameters. At the end of the shift, fillet and PJP welding of the drip plate to the side plate were completed and was visually accepted by QC Bernie Docena.









WELDING INSPECTION REPORT

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Summary of Conversations:

No significant conversation ocurred 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