

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-026732**Date Inspected:** 17-Nov-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:	Bernie Docena and Fred Von Hoff			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 the request of Quality Control Field Supervisor, Bonifacio Daquinag, QA has randomly verified the QC VT/MT of the Complete Joint Penetration (CJP) welding of two (2) vent hole infill plate to top deck plate butt joints. The QA verification was performed to verify that the welding and the VT/MT inspection performed by the QC inspector meet the requirements of the contract documents. At the conclusion of the QA verification it appeared that the weld and the QC inspection complied with the contract documents.

1. OBG 14E-PP125.2-E3.2 vent hole infill plate to deck plate outside - QA VT/MT verified
2. OBG 14E-PP125.2-E3.7 vent hole infill plate to deck plate outside - QA VT/MT verified

At OBG 14E-PP126.2-E2.4 vent 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 3/16" diameter E7018H4R electrode implementing Welding Procedure Specification (WPS) ABF-WPS-D15-1050A-CU for the Seismic Performance Critical Member (SPCM) butt joint. During welding, ABF QC Fred Von Hoff was noted monitoring the welder's welding parameters with measured working current of 235 amperes on the 3/16" 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 lifting lug hole 14E-PP125-E3-#2.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

At OBG 14E-PP125-E3-#2 and #1 lifting lug hole infill plates to top deck plate outside, ABF welder Salvador Sandoval was observed continuing to perform 1G SMAW welding root pass to fill 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 pass. The welder was noted implementing Welding Procedure Specification (WPS) ABF-WPS-D15-1050A-CU for the Seismic Performance Critical Member (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 120 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, fill pass welding on the top side location of the two butt joints was still continuing and should remain tomorrow.

At OBG 14E-PP126.7-E2.5 vent hole infill plate to top deck plate outside, ABF welder Erick Sparks 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 and fill pass. 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. 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" E7018H4R electrode. During the shift, fill pass welding on the top side location of the butt joint was still continuing when the welder was pulled out and went to another job assignment.

At OBG 14E-PP125-E3.2 vent hole infill plate to top deck plate inside - ABF welder Rick Clayborn was observed 4G SMAW back 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 electrode implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1110A. Prior welding, ABF QC Bernie Docena was observed performing Magnetic Particle Testing (MT) on the back gouged of the welded butt joint. During welding, ABF QC Bernie Docena was noted monitoring the welder's welding parameters. At the end of the shift, the welder has completed the cover pass welding.

At 13E/14E top deck plate 'A5' (250mm long at the corner of edge plate 'F') outside, QA randomly observed ABF certified welder Fred Kaddu perform 1G (flat position) Shielded Metal Arc Welding (SMAW) welding root pass to cover pass on the CJP SPCM splice butt joint. The welder was utilizing 1/8" diameter E7018H4R on the root pass and 5/32" diameter E7018H4R on the fill pass to cover pass implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1040C Rev. 1. The joint being welded had a single V-groove butt joint with backing bar that will be removed then back welded. The plates were preheated to more than 150 degree Fahrenheit using propylene gas torch prior welding. Welding parameters were monitored by ABF/QC Fred Von Hoff. QA noted the welding parameters of 130amperes on the 1/8" diameter E7018H4R electrode while 155 amperes on the 5/32" diameter E7018H4R electrode. The workmanship and appearance of the completed root and cover pass deemed satisfactory. At the end of the shift, cover pass welding was completed.

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.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)



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