

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-024645**Date Inspected:** 23-Jun-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:	Steve Jensen 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 Tower	

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 Tower East Shaft Splice #3 @Elevation 114 meters;

At Tower East Shaft East (B-C) corner, ABF welder Mike Jimenez was observed performing fit up of the lower and upper splice plates to interior corner closure plate. The welder has tack welded using SMAW various temporary attachments to the interior corner closure plate and used wedges to hold the lower/upper splice plates in place. The welder was also noted preheating the plate to more than 225°F prior welding. ABF QC Steve Jensen was noted at site monitoring the welder and his welding parameter. During the shift, fit up of the splice plates at location mentioned above was completed. This QA has noted ABF QC Steve Jensen perform fit up verification on the installed splice plates. During the verification, the lower splice plate was noted having less than 2mm gap to 4mm gap between the splice plate and the interior corner closure plate while the upper splice plate was having less than 2mm gap to 6mm gap. ABF personnel have inserted two shim plates, one on each side of the plate. The shim on the left side of the plate was 3mm thick x 38mm wide x 150mm long and the one on the right side of the plate was 3mm thick x 38mm wide x 250mm long. According to QC Steve Jensen, ABF will ask Caltrans approval on the use of filler plates on upper splice plate.

At tower East Shaft Southeast (C-D) corner, ABF welder Mike Jimenez had already previously completed the fit up of the splice. This QA has noted ABF QC Steve Jensen perform fit up verification on the installed splice plates.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

During the verification, the lower splice plate was noted having less than 2mm gap to 3mm gap between the splice plate and the interior corner closure plate while the upper splice plate was having less than 2mm gap to 5mm gap. There was no filler plate installed on both upper and lower splice plates. Measured gap on the upper and lower splice plates deemed in compliance to the contract requirements.

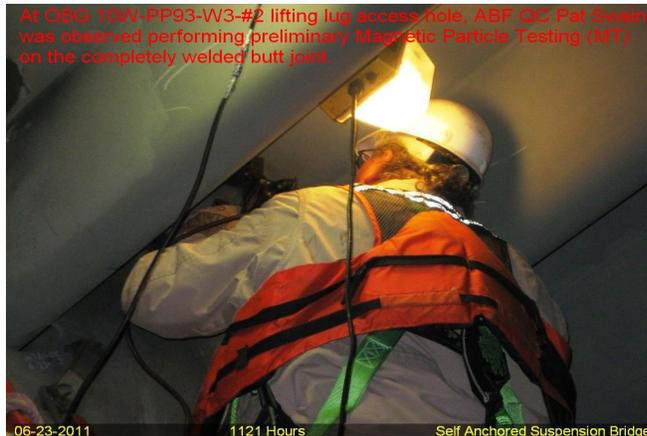
At OBG 10-PP92-W3-#2 top deck plate inside - ABF welder Darcel Jackson was observed 4G Shielded Metal Arc Welding (SMAW) back welding fill pass to cover pass on the infill plate to top deck plate butt joint. The welder was noted using 1/8" diameter E7018H4R electrode implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1110A. During welding, ABF QC John Pagliero was noted monitoring the welder's welding parameters. During the shift, cover pass welding and flush grinding on the weld cover on this location was completed and the welder has moved to the lifting lug access holes #1 & 3 same location and started carbon arc gouging. The welder was noted grinding the groove of the gouged surface until the end of the shift.

At OBG 11E/12E top deck plate A1 to A5 outside , QA randomly observed ABF/JV qualified welders Wai Kitlai and Hua Qiang Hwang seal welding top deck plates 'A1 to A5' to the backing bar. The welders were utilizing a 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-D15-3040A-1. The joint had a single V-groove butt joint design with the bottom plate being seal welded with backing bar. The plate with the backing bar was preheated to greater than 150 degrees Fahrenheit using Miller Proheat 35 Induction Heating System blankets located at the top of the plate prior welding and moving to the side of the plate during welding. During the shift, ABF QC Fred Von Hoff was noted monitoring both welders with welder Wai Kitlai and Hua Qiang Huang were noted having welding parameters of 290 amperes/24.5 volts and travel speed of 350mm per minute and 285 amperes/22.7 volts and travel speed of 360mm per minute respectively which deemed in compliance to the contract requirements. The welders have not completed the seal welding of the joint during the shift and should continue tomorrow.



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