

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-025186**Date Inspected:** 15-Jul-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 William Sherwood			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 Base Elevation 13Meters Shear Plate Electro Slag Welding (ESW);

This QA together with ABF QC Jesse Cayabyab performed a joint fit up inspection/verification on the alignment of the 80-100mm transition butt joint W-043 at location 'V' in preparation for the next ESW that was scheduled to be welded July 16, 2011. The root gap and offset were measured from bottom to top. The result noted on the offset verification was less than 3.0mm on most of the part except on the following which has exceeded the maximum allowed;

Y-location	Offset	Length
8760mm to 9780mm	4-5mm	1020mm
7490mm to 7700mm	4-5mm	210mm
4350mm to 7490mm	5-6mm	3140mm
3380mm to 4350mm	4-5mm	970mm
0mm to 300mm	4mm	300mm

The root gap measured was 19mm minimum and 25mm maximum which appears in compliance to the approved WPS.

At the request of Quality Control Field Supervisor, Bonifacio Daquinag, QA has randomly verified the QC VT of

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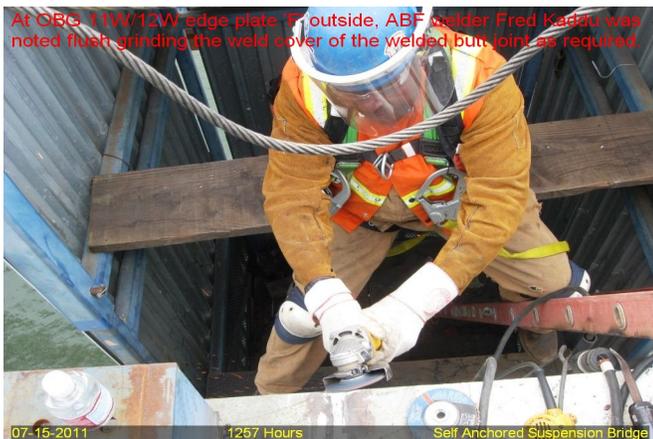
the fillet welding of two (2) splice plates. The QA verification was performed to verify that the welding and the VT inspection performed by the QC inspector meet the requirements of the contract documents. At the conclusion of the QA verification it appeared that the weld and the QC inspection complied with the contract documents.

1. Tower West Shaft Elev. 114meters Northwest (C-D) corner upper splice – QA VT verified
2. Tower West Shaft Elev. 114meters Northwest (C-D) corner lower splice – QA VT verified

At OBG 11W/12W edge plate 'B' outside, QA randomly observed ABF/JV qualified welder Jorge Lopez continuing to perform fill pass welding on the Complete Joint Penetration (CJP) 28mm thick splice butt joint. The welder was observed manually welding in the 3G (vertical) position utilizing a Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1040B. The joint being welded has a single V-groove butt joint with steel backing bar. ABF Quality Control (QC) William Sherwood was noted monitoring the welding parameters of the welder. QA randomly monitored the welding parameter with reading of 130 amperes which appears in conformance to the contract requirements. At the end of the shift, SMAW fill pass welding was still continuing and should remain tomorrow.

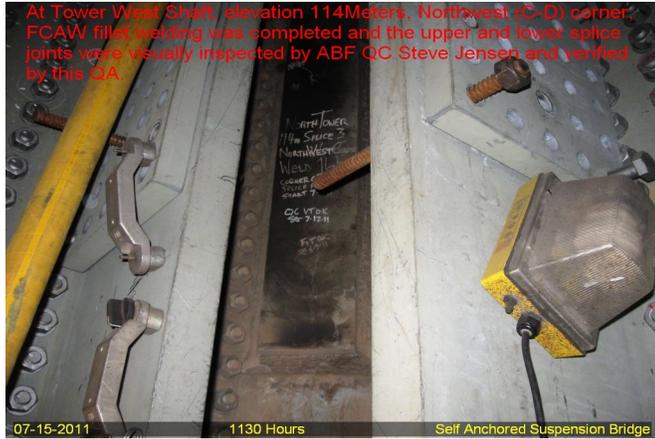
At OBG 11W/12W edge plate 'F' outside, QA randomly observed ABF/JV qualified welder Fred Kaddu continuing to perform fill pass to cover pass welding on the Complete Joint Penetration (CJP) 18mm thick splice butt joint. The welder was observed manually welding in the 3G (vertical) position utilizing a Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1040B. The joint being welded has a single V-groove butt joint with steel backing bar. ABF Quality Control (QC) William Sherwood was noted monitoring the welding parameters of the welder. QA randomly monitored the welding parameter with reading of 138 amperes which appears in conformance to the contract requirements. At the end of the shift, SMAW cover pass welding was completed including the flush grinding of the weld cover as required.

At OBG 9W-PP80-W4-#2 lifting lug hole to top deck plate outside – ABF welder Mike Jimenez was observed 1G Shielded Metal Arc Welding (SMAW) welding fill pass to cover pass on the infill plate to top deck plate butt joint. The welder was noted using 5/32" diameter E7018H4R electrode implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1070. During welding, ABF QC William Sherwood was noted monitoring the welder's welding parameters. At the end of the shift, cover pass welding on the top side location of the 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