

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018987**Date Inspected:** 29-Dec-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1000**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

CWI Name:	Gary Ersham and John Pagliero			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:	Orthotropic Box Girder		

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 8W/9W edge plate 'F' outside, QA randomly observed ABF/JV qualified welder Hua Qiang Hwang perform root pass welding on the Complete Joint Penetration (CJP) 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 copper backing bar. During welding, ABF Quality Control (QC) Gary Ersham was noted monitoring the welding parameters of the welder. QA randomly monitored the welding parameter with reading of 120 amperes which appears in conformance to the contract requirements. At the end of the shift, SMAW root pass welding was completed and the welder has moved to 9E/10E bottom plate 'D' to prep for the seal welding of the backing bar to the plate.

At OBG 8W-PP61.5-W5-SW deck access hole inside, QA randomly observed ABF/JV qualified welder Jorge Lopez perform back welding fill pass on the CJP butt joint. The welder was observed manually welding in the 4G (overhead) position utilizing a Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1010 Revision 1. The joint being welded has a double V-groove butt joint welded with open root from the top deck. ABF Quality Control (QC) Gary Ersham was noted monitoring the welding parameters of the welder. QA randomly monitored the welding parameter with reading of 125 amperes which appears in conformance to the contract requirements. At

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

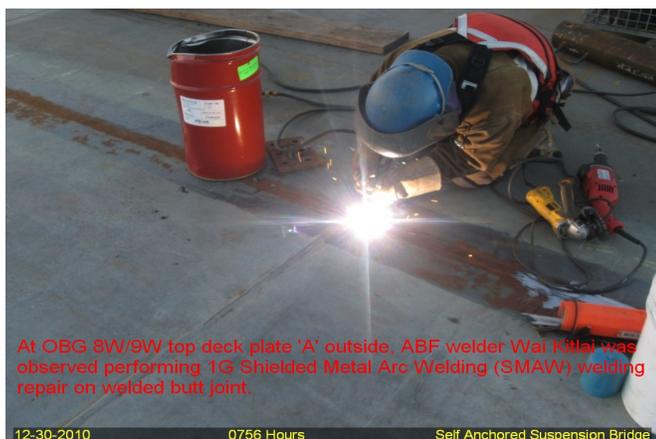
the end of the shift, SMAW fill pass welding was still continuing and should remain tomorrow.

At OBG 7E/8E edge plate 'F' inside, QA randomly observed ABF/JV qualified welder Fred Kaddu ID # 2188 continuing to perform CJP groove welding repair. The welder was observed welding in the 3G (vertical) position utilizing Shielded metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1001-Repairs. The boat shape repair excavations having various dimensions were preheated to more than 140 degree Fahrenheit using propane gas torch prior welding. During the shift, ABF QC Fred Von Hoff was noted monitoring the welder. Prior welding, ABF QC John Pagliero was also observed performing Magnetic Particle Testing (MT). There were no defects noted during the test. The following first time repairs were noted excavated and completely welded at the end of the shift;

Location	Y-dimension	Length	Width	Depth	Remarks
1. F	180mm	270mm	30mm	13mm	Completed
2. F	510mm	100mm	30mm	11mm	Completed
3. F	740mm	80mm	25mm	10mm	Completed
4. F	800mm	75mm	20mm	11mm	Completed
5. F	800mm	65mm	20mm	11mm	Completed

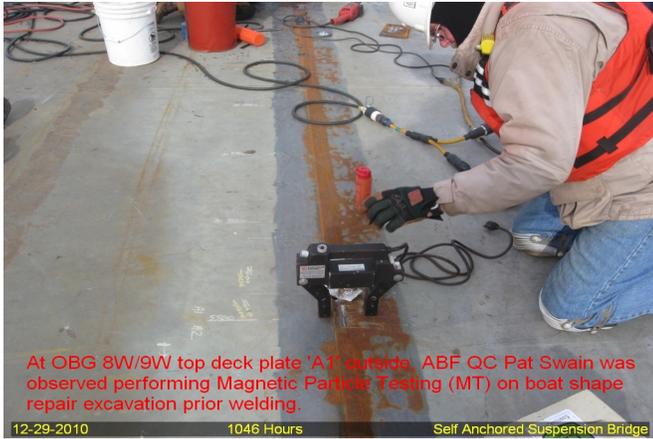
At OBG 8W/9W top deck plate 'A1' outside, QA randomly observed ABF/JV qualified welder Wai Kitlai perform CJP repair welding. The welder was noted welding in 1G (Flat) position utilizing Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1001 Repairs. The four repairs were excavated to a boat shape profile and were tested with Magnetic Particle Testing (MT) prior welding. During welding, ABF QC Pat Swain was noted monitoring the welder and his welding parameters. Welding parameter measured at the time of welding was 135 amperes which appears in compliance to the WPS. The locations of the repairs were noted below;

Location	Y-dimension	Length	Width	Depth	Remarks
1. A1	2150mm	100mm	23mm	14mm	Completed
2. A1	2485mm	115mm	26mm	14mm	Completed
3. A1	5200mm	210mm	23mm	14mm	Completed
4. A1	5450mm	100mm	25mm	14mm	Completed



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: Mertz, Robert QA Reviewer