

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-017339**Date Inspected:** 08-Oct-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

CWI Name:	John Pagliero and Jesse Cayabyab			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 7W/8W top deck plate 'A' outside, ABF welders Xiao Jian Wan and Kenneth Chappell were observed grinding/cleaning the bevel and base metal adjacent to the weld in preparation for the splice butt welding of the joint. The welders were using disc grinder and power brush in cleaning the bevel and adjacent base metal surface. During the shift, QC Bonifacio Daquinag and Lead QA Rick Bettencourt performed a joint fit up alignment measurement and forwarded their readings to Caltrans/ABF for review and approval. While waiting for the approval to weld, ABF personnel were noted preparing their welding machines/accessories and Miller Proheat 35 Induction Heating System heater blankets.

At OBG 6W/7W side plate 'E' (1000mm to 3500mm) inside, QA randomly observed ABF/JV qualified welder Sungtao, Huang ID # 3794 continuing to perform CJP groove (splice) welding fill pass on the splice butt joint. The welder was observed perform automatic welding in the 3G (vertical) position 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-D15-3042B-1. The joint being welded had a single V-groove butt joint with backing bar. The splice joint was preheated and maintained to greater than 150 degrees Fahrenheit using Miller Proheat 35 Induction Heating System heater blankets located at the opposite side of the plate prior/during welding. During welding, ABF Quality Control (QC) John Pagliero was noted monitoring the welding parameters of the welder. At the end of the shift, fill pass welding on the splice butt joint was still continuing and

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should remain tomorrow.

At OBG 7W/8W bottom plate 'D' inside, QA noted ABF welders Xiao Jian Wan and Hua Qiang Hwang continuing to perform fill pass welding on the north side (1000mm long) and south side (600mm) respectively on the splice butt joint where the track mounted Submerged Arc Welding (SAW) wire feeder will have a limited access. The welders were separately and manually welding the joint ends 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 being welded had a single V-groove butt joint with backing bar. The splice joint was preheated and maintained to greater than 150 degrees Fahrenheit using propane gas torch prior welding. During welding, ABF/QC John Pagliero was observed monitoring the welding parameters of both welders. At the end of the shift, FCAW-G cover pass welding on the south side of the joint was completed but the north side was still continuing that should remain Monday.

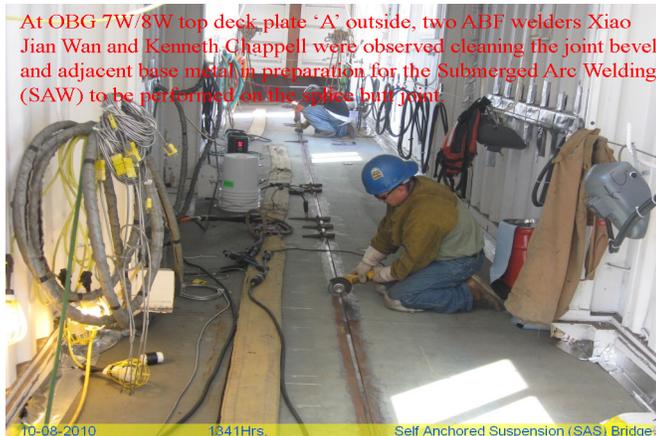
At OBG 5W/6W side plate 'E2' inside, QA randomly observed ABF/JV qualified welder Fred Kaddu ID # 2188 perform CJP groove welding repair. The welder was observed welding in the 3G (vertical) position utilizing Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1000-Repairs. Earlier during the shift, the welder has completed three repairs and during the afternoon shift he was working on the fourth and fifth repairs. The first time fourth and fifth repair excavations were located at E2 Y dimension Y1520mm having dimensions of 85mm length x 25mm wide x 7mm deep and E2 Y dimension Y1910mm having dimensions of 80mm long x 23mm wide x 8mm deep. Both repairs were noted close to each other. The boat shape excavations were preheated to more than 140 degree Fahrenheit using propane gas torch prior welding. During the shift, ABF QC Jesse Cayabyab was noted monitoring the welder. Prior welding, ABF QC Jesse Cayabyab was also observed performing Magnetic Particle Testing (MT) using Parker Contour Probe with red magnetic powder as detecting media on the repair excavation. There were no significant defects noted during the test. Before the end of the shift, the repair was completed on the fourth repair while the fifth repair was still continuing that should remain until Monday.



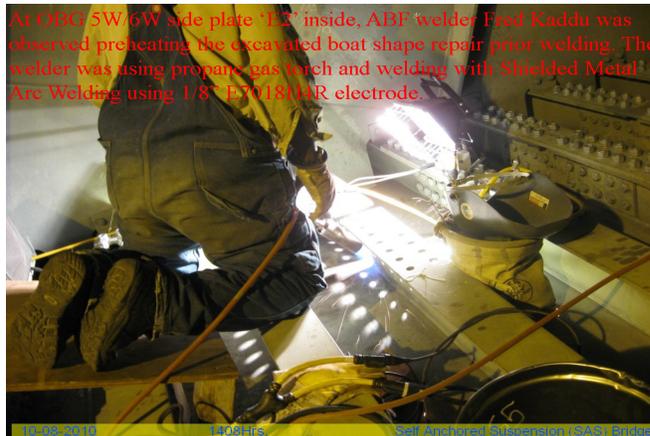
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At OBG 7W/8W top deck plate 'A' outside, two ABF welders Xiao Jian Wan and Kenneth Chappell were observed cleaning the joint bevel and adjacent base metal in preparation for the Submerged Arc Welding (SAW) to be performed on the splice butt joint.



At OBG 5W/6W side plate 'E' inside, ABF welder Fred Kaddu was observed preheating the excavated boat shape repair prior to welding. The welder was using propane gas torch and welding with Shielded Metal Arc Welding using 1/8" E7018 AWS electrode.



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 Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

Inspected By: Lizardo, Joselito

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer