

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-016868**Date Inspected:** 20-Sep-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:	Tom Pasqualone 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 5W/6W side plate 'E' (9945mm to 10555mm) 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 performing manual welding in the 3G (vertical) position utilizing a Shielded Metal Arc Welding (SMAW) with 1/8" E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1040B. The joint being welded had a single V-groove butt joint with backing bar and limited access of the Bug-o track mounted welder nozzle holder. The splice joint was preheated and maintained to greater than 150 degrees Fahrenheit using Miller Proheat 35 Induction Heating System located at the opposite side of the plate prior/during welding. ABF Quality Control (QC) Tom Pasqualone was noted monitoring the welding parameters of the welder. During the shift, the welder has completed the cover reinforcement of the area he was welding using the SMAW. The welder intends to move to new location at OBG 6E/7E side plate 'C' inside.

At OBG 6E/7E edge plate 'B' inside, QA randomly observed ABF/JV qualified welder James Zhen ID #6001 perform fill pass back 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-D15-3110-3. The joint being welded has a single V-groove butt joint with copper backing bar that has

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been removed and back gouged. The groove of the ground and gouged area of the copper backing bar was also tested and passed using Magnetic Particle Testing (MT). During welding, ABF Quality Control (QC) Tom Pasqualone was noted monitoring the welding parameters of the welder. During the shift, cover pass SMAW welding was still ongoing when welder was pulled out and went to OBG 6W/7W bottom plate 'D' inside and prepared the joint and welding equipment for the splice welding.

At OBG 6E/7E edge plate 'F' inside, QA randomly observed ABF/JV qualified welder Xiao Jian Wan ID #9677 perform fill pass back 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-D15-3110-3. The joint being welded has a single V-groove butt joint with copper backing bar that has been removed and back gouged. The groove of the ground and gouged area of the copper backing bar was also tested and passed using Magnetic Particle Testing (MT). During welding, ABF Quality Control (QC) Tom Pasqualone was noted monitoring the welding parameters of the welder. During the shift, cover pass SMAW welding was still ongoing when welder was pulled out and went to OBG 6W/7W bottom plate 'D' inside and prepared the joint and welding equipment for the splice welding.

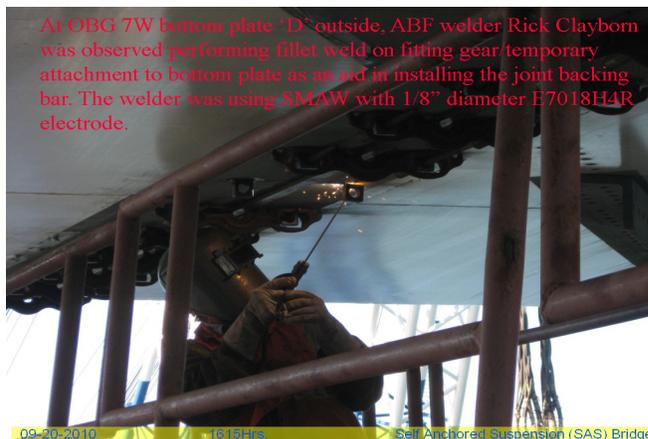
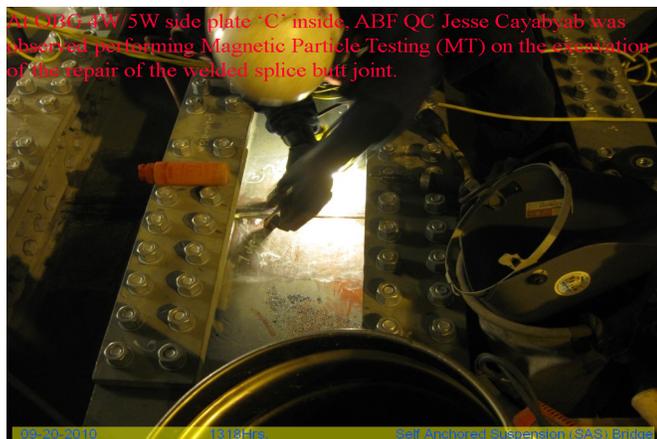
At OBG 6E/7E top deck plate 'A' outside, QA randomly observed ABF/JV qualified welder Eric Sparks perform 2F fillet welding on fitting gear/temporary attachment to the top deck. The fitting gears were used in adjusting the top deck plate alignment/offset. The welder was using Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode. During welding, ABF QC William Sherwood was noted monitoring the welder and at the same time measuring the alignment as they hit the insert rod to push the other plate for the adjustment. At the end of the shift, welding of the fitting gear was still continuing and should remain tomorrow.

At OBG 7W bottom plate 'D' outside, QA randomly observed ABF welder Rick Clayborn fillet welding fitting gear/temporary attachment. The welder was welding in 4F (overhead) position using 1/8" diameter E7018H4R electrode. QA noted ABF QC Jim Cunningham monitoring the welder and his parameter. During the shift, welding of the fitting gear/temporary attachment was completed and the backing bar was also put in place at the splice joint 6W/7W bottom plate 'D' outside. After installing the backing bar, ABF QC went inside the box and checked the alignment. QC informed QA that during the initial measurements of the alignment he was getting 4.0mm and 3.0mm misalignment on some areas which he said still need more adjustment.

At OBG 4W/5W edge plate 'F' outside, 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. The repair 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 three repair excavations. There were no significant defects noted during the test. During the shift, the welder has completed welding all the three (UT) repairs and has moved to another work location.

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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 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