

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-018247**Date Inspected:** 19-Nov-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:	William Sherwood and John Paglieri			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 7E/8E LS2 longitudinal stiffener inside, QA randomly observed ABF welder Hua Qiang Hwang ID #2930 perform 3G (vertical) Shielded Metal Arc Welding (SMAW) complete joint penetration (CJP) welding root pass cover pass on one side of the stiffener splice butt joint. The joint has a double V joint preparation that is being welded from one side using E9018H4R with 1/8" diameter electrode implementing Caltrans approved welding procedure specification (WPS) ABF-WPS-D1.5-1012-3. The joint being welded is a high strength plate material HPS 485W which has a thickness of 30mm was root welded using a ceramic backing. The splice joint was preheated and maintained to greater than 200 degrees Fahrenheit using Miller Proheat 35 Induction Heating System heater blanket located at the opposite side of the plate prior/during welding. During the shift, cover welding at one side was completed and the welder has moved to the other side. The welder back gouged and ground smooths the other side and after its completion, ABF QC John Pagliero has performed the Magnetic Particle Testing. The welder continued back welding fill pass on the other side. At the end of the shift, fill pass welding of the stiffener was still continuing and should continue on Monday. The QA Inspector noted the ABF QC John Pagliero was on site monitoring the in process preheat and welding parameters. During the shift, QA noted ABF QC was closely monitoring the issuance of E9018H4R electrodes due to its limited exposure time allowed.

At OBG 7E/8E edge plate 'F' inside, QA noted ABF welder Jorge Lopez back gouging the splice butt joint. The welder was using carbon air arc gouging and after its completion the welder was noted grinding the groove of the

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gouged area of the joint. The smooth grinding of the gouged area was also completed and ABF QC John Pagliero was observed performing the Magnetic Particle Testing (MT) of the gouged and ground area of the joint. After the completion and acceptance of MT, the welder performed SMAW back welding fill pass on the splice joint. The welder was observed welding in the 3G (vertical) position utilizing 1/8" diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1110A Revision 1. ABF Quality Control (QC) Bonifacio Daquinag was noted monitoring the welding parameters of the welder. At the end of the shift, fill pass welding was still continuing and should remain Monday.

At OBG 7W/8W side plate 'E' inside, QA randomly observed ABF/JV qualified welder Sungtao, Huang ID # 3794 has completed the weld cover at location 1000mm to 3640mm. After its completion, the welder has moved to new location 0mm to 1000mm and performed root pass and fill pass welding using SMAW. The joint being welded with SMAW has a single V-groove butt joint with backing bar and limited access for the Bug-o track mounted FCAW-G nozzle holder. ABF Quality Control (QC) William Sherwood was noted monitoring the welding parameters of the welder. At the end of the shift, fill pass welding was still continuing and should remain Monday.

At OBG 8W/9W bottom plate 'D' inside was noted idle and top deck 'A' was noted with minimal welding activity except for pushing insert rods into the keyplate fitting gear. Bad weather and rain were also experienced at the job site and the working hours were shortened to eight hours.



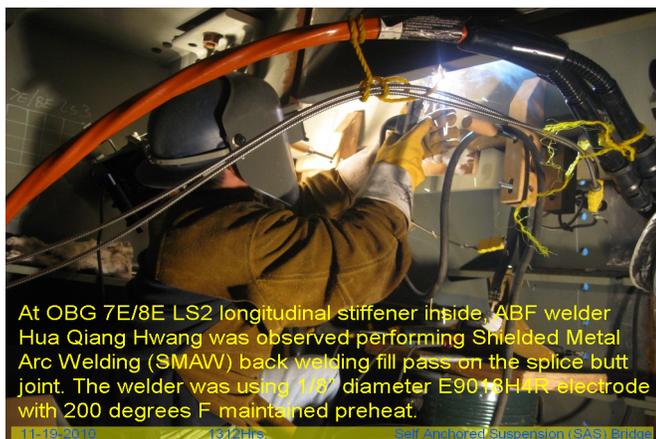
At OBG 7E/8E edge plate 'F' inside, ABF QC John Pagliero was observed performing Magnetic Particle Testing (MT) on the groove of the gouged and ground area of the backing bar removal.

11-19-2019 12:04Hrs Self Anchored Suspension (SAS) Bridge



At 7E/8E LS2 longitudinal stiffener inside, splice butt joint was back gouged using 4 1/2" disc grinder after welding from the other side. The gouged area was also tested using Magnetic Particle Testing (MT) prior to resume welding.

11-19-2019 12:57Hrs Self Anchored Suspension (SAS) Bridge



At OBG 7E/8E LS2 longitudinal stiffener inside, ABF welder Hua Qiang Hwang was observed performing Shielded Metal Arc Welding (SMAW) back welding fill pass on the splice butt joint. The welder was using 1/8" diameter E9018H4R electrode with 200 degrees F maintained preheat.

11-19-2019 12:21Hrs Self Anchored Suspension (SAS) Bridge



At OBG 7W/8W side plate 'E' inside, ABF welder Songtao, Huang was observed performing Shielded Metal Arc Welding (SMAW) welding fill pass on splice butt joint at 0mm to 1000mm location.

11-19-2019 11:10Hrs Self Anchored Suspension (SAS) Bridge

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Summary of Conversations:

No significant conversation 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
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Reviewed By:	Levell, Bill	QA Reviewer
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