

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-016818**Date Inspected:** 13-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:	Jesse Cayabyab and Mike Johnson			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 2W side plate 'C' outside, QA randomly observed ABF welder Rick Clayborn continuing to perform fillet and partial joint penetration (PJP) welding in 2F/2G position using Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode. The welder was welding on 2 1/4" wide x 3/8" thick drip plate to the side plate of the OBG at panel point PP13 to PP14. The drip plate and the surface of the side plate (where the drip plate was welded) were noted ground and the paint coating removed. ABF QC Mike Johnson was noted monitoring the welding and its parameters. Before the end of the shift, fillet and PJP welding of three drip plates on mentioned above location were completed and the welder has moved to weld the bottom counter weight connection plate at the same location edge plate 'B'.

At OBG 2W edge plate 'B' outside, ABF welder Rick Clayborn was observed perform 1G/4G (flat position/overhead) CJP welding 3/8" thick x 3 5/8" wide counter weight connection plate to the bottom of edge plate 'B'. The welder was using SMAW with 1/8" diameter electrode implementing Caltrans approved welding procedure specification (WPS) ABF-WPS-D1.5-D1000. The connection plate has a 45 degree bevel that was welded from one side and then back gouged and back welded from the other side. ABF QC Mike Johnson was also noted monitoring the welding and its parameters. At the end of the shift, welding of the bottom counter weight connection plate was still continuing and should remain tomorrow.

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At OBG 4W/5W side plate 'E' inside, QA randomly observed ABF QC Jesse Cayabyab perform Magnetic Particle Testing (MT) on the welded splice butt joint. The QC was also noted performing visual test (VT) on the joint as he goes on with the MT. The QC was using Magnaflux electromagnetic yoke with red magnetic powder as detecting media. QC has completed the VT and MT on the joint and afterwards he informed QA that he found no significant defects during the tests.

At OBG 4W/5W side plates 'C' and 'E' outside, ABF personnel were observed flush grinding the weld cover reinforcement of the splice butt joint as required. The personnel were using the 9" disc grinder with the grinding cut of the disc to the plate parallel to the direction of the bridge complying with the contract requirements. At the end of the shift, flush grinding of the weld cover reinforcement was completed on side plate 'E' and ready for ABF QC NDT. At the other side plate 'C', flush grinding of the weld cover reinforcement was still continuing and should continue tomorrow.

At OBG 4W/5W bottom plate 'D' outside, QA noted ABF welders Rory Hogan and Jeremy Dolman completed welding the cover of the whole splice joint. The welders were noted cleaning up the area where they just welded and getting ready to move to OBG 5W/6W side plate 'C' outside. During the shift on OBG 5W/6W side plate 'C' outside, one of the welders was noted grinding/cleaning the groove of the gouged and ground backing bar removal in preparation for the 4G FCAW-G splice back welding. On the other side plate 'E' of the same OBG, ABF welders Bryce Howell and Mike Maday were also noted preparing their Esab plasma arc machine for the removal of the backing bar. The welders were also noted lining up their Bug-o track for the plasma arc track mounted nozzle holder. At the end of the shift, both groups of ABF personnel were still prepping for their respective tasks.

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At OBG 6E/7E top deck plate A1 to A5 outside, it was earlier reported (dated 9-10-10) that ABF certified welders Bryce Howell ID #5591 and Mike Maday ID #3391 was performing flat (1G) Submerged Arc Welding (SAW) to the splice butt joint. In this said report there was an attached photograph wherein it was inadvertently labeled as OBG 6E/7E bottom plate 'D' inside. This QA would like to set the record straight on this erroneously labeled photograph that should read OBG 6E/7E top deck plate A3 to A5 outside instead of OBG 6E/7E bottom plate 'D' inside. Please see attached corrected photograph.

At OBG 6E/7E top deck plate A3 to A5 outside (*), ABF welder Mike Maday was noted performing Submerged Arc Welding (SAW) on the splice butt joint. The welder was using Lincoln Electric track mounted feeder.

* This top deck plate A3 to A5 was erroneously reported earlier (9-10-10) as bottom plate 'D' inside. It is being resubmitted in today's report to set the record straight.



At OBG 4W/5W side plate 'E' inside, ABF QC Jesse Cayabyab was observed performing Magnetic Particle Testing (MT) on the welded splice butt joint. The QC was using a Magnaflux electromagnetic yoke with red magnetic powder as detecting media.



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At OBG 4W/5W side plate "E" outside, ABF welder Huang Jin Quan was noted flush grinding the weld cover reinforcement of the splice butt joint as required. The welder was using a 9" grinder with the grinding cut to the plate parallel to the direction of the bridge complying with the contract requirements.



At OBG 2W side plate "E" outside, ABF welder Rick Clayborn was noted SMAW welding 2 1/4" wide x 3/8" thick drip plate to the side plate of the OBG at panel point PP13 to PP14.



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