DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-017230
Date Inspected: 02-Oct-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 800
OSM Departure Time: 1630
Location: Job Site

CWI Name: William Sherwood and Jesse Cayabyab

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ 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 bottom plate 'D' inside, QA noted ABF welders Xiao Jian Wan continuing to perform fill pass welding on the north side (1000mm long) on the splice butt joint where Submerged Arc Welding (SAW) was not performed due to limited access of track mounted SAW wire feeder. The welder was manually welding the joint 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. While welder Xiao Jian Wan was welding on the north side of the splice butt joint, welder Hua Qiang Huang was also noted FCAW-G welding the underfill caused by the Submerged Arc Welding (SAW). This welder was also manually welding the joint 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. After welding all the underfills, the welder started grinding the excessive reinforcement on the cover of the SAW welded splice joint. During welding, ABF/QC William Sherwood was observed monitoring the welding parameters of both welders. At the end of the shift, FCAW-G cover pass welding on the north side of the joint was completed but grinding of the excessive reinforcement was still continuing that should remain Monday.

At OBG 5W/6W side plate 'E' outside, ABF QC Jesse Cayabyab was observed performing Ultrasonic Testing

(UT) on the welded splice butt joint. QC was using General Electric USM35 ultrasonic machine. QC was also observed scanning from both sides of face 'B' of the joint. During the shift, ultrasonic testing on the butt joint was still continuing and should remain tomorrow.

At OBG 6E/7E side plate 'C' outside, QA randomly observed ABF personnel Rory Hogan and Jeremy Dolman perform plasma arc gouging on the backing bar removal of the splice butt joint. The personnel were using an Esab plasma arc gouging machine that has the nozzle holder attached to a Bug-o track. Gouging of the backing bar was not completed today and should continue tomorrow.

At OBG 1E north top deck manhole infill plate (outside), this QA performed 10% MT verification on the welded butt joint. QA was using Parker Contour Probe Model DA 400 with serial number 16989 electromagnetic yoke with red magnetic powder as detecting media. QA found no significant indications during the verification. Please see TL-6028 report for more information.

Summary of Conversations:

No significant conversation ocurred 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