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-019812
Date Inspected: 26-Jan-2011

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

OSM Arrival Time: 1000
OSM Departure Time: 1830
Location: Job Site

CWI Name: William Sherwood and Fred Von Emmi

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.

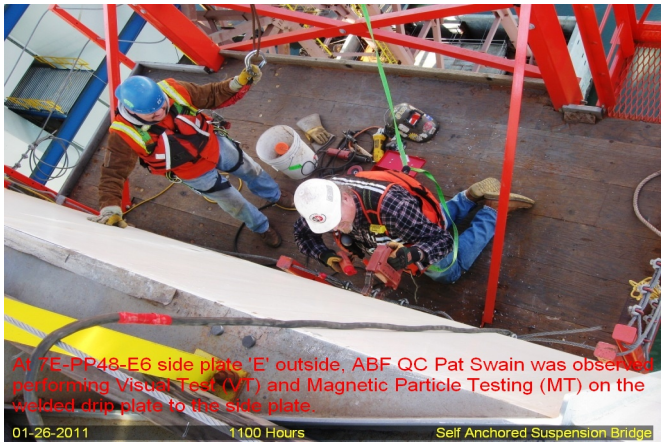
At OBG 9W/10W edge plate ‘B’ outside, QA randomly observed ABF/JV qualified welder Jorge Lopez perform fill pass welding on the Complete Joint Penetration (CJP) splice butt joint. The welder was observed manually welding in the 3G (vertical) position utilizing a Shielded Metal Arc Welding (SMAW) with 1/8” diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1040B. The joint being welded has a single V-groove butt joint with steel backing bar. During welding, ABF Quality Control (QC) William Sherwood was noted monitoring the welding parameters of the welder. QA randomly monitored the welding parameter with reading of 130 amperes which appears in conformance to the contract requirements. At the end of the shift, SMAW fill pass welding was still continuing and should remain tomorrow.

At OBG 1W-PP10.5-W2-LS-E longitudinal stiffener inside, QA randomly observed ABF welder Hua Qiang Hwang perform 3G (vertical) SMAW welding root pass to fill pass on the stiffener splice butt joint. The stiffener plates being welded are made of high strength plate material HPS 485W and has a thickness of 30mm. The joint has a double V joint preparation that was welded from one side and after the completion from one side to be back gouged and Non Destructive Testing (NDT) tested using Magnetic Particle Testing (MT) and back welded to the other side. The welder was noted using E9018H4R with 1/8” diameter electrode implementing Caltrans approved welding procedure specification (WPS) ABF-WPS-D1.5-1012-3. The joint being welded was root welded using a

ceramic backing. The splice joint was preheated 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. The QA Inspector noted the ABF QC Gary Ersham was on site monitoring the in process preheats 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 the end of the shift, fill pass welding on the other side was still continuing and should remain tomorrow.

At OBG 7E-PP48-E6 side plate 'E' outside, QA randomly observed ABF welder Mike Jimenez 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 ¼" wide x 3/8" thick drip plate to the side plate of the OBG. 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 Steve Jensen was noted monitoring the welding and its parameters. During the shift, fillet and PJP welding was completed and ABF QC Pat Swain was noted performing visual test (VT) and Magnetic Particle Testing (MT) on the welded joint. This QA also performed the VT on the same joint and noted in compliance to the code requirements.

At OBG deck access holes 1W-PP10.5-W5-S AND 6E-PP46.5-E2-SE outside, this QA performed 10% MT verification on the welded splice butt joint. QA found no 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 Sang Le 916-764-5650, who represents the Office of Structural Materials for your project.

Inspected By: Lizardo,Joselito Quality Assurance Inspector

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Reviewed By: Levell,Bill QA Reviewer