

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-026194**Date Inspected:** 26-Aug-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

CWI Name:	John Pagliero and Steve Mc Connell			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:	SAS Tower		

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 Tower Base Elevation Electro Slag Welding (ESW) T-joint E-041 location 'R', QA randomly ABF welder Richard Garcia continuing to perform 3G SMAW first time welding repair (R1) on the visually (VT) detected defect on the surface of the vertical weld of the ESW. 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-Repair Rev. 2. The boat shape repair excavation located at Y=2325mm to Y=2800mm was excavated to dimensions of 475mm long x 75mm wide x 40mm deep. The excavation was previously tested using Magnetic Particle Testing (MT) by ABF QC Steve Mc Connell and this QA with positive result. The repair excavation and the adjacent base metal was preheated and maintained to more than 204°C (400°F) using Miller Proheat Induction Heating System with the heater blankets placed at the other side of the repair. During the shift, ABF QC John Pagliero was noted monitoring the welder. Measured welding parameter during welding was 138 amperes on a 1/8" diameter E7018H4R electrode. During the shift, cover pass repair welding was still continuing and should remain tomorrow. At the end of the shift, the welder has programmed the Miller Proheat 35 Induction Heating System to hold the preheat of 400°F for three hours and cool down at 150°F per hour as recommended by ABF.

At Tower Base Electro Slag Welding (ESW) T-joint # N-041 location 'N', ABF QC Steve Mc Connell was observed performing Magnetic Particle Testing (MT) on the excavation of Ultrasonic Testing (UT) detected defect

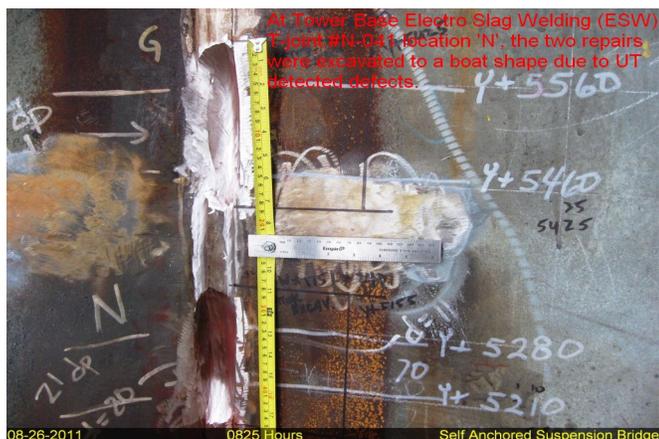
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at two locations; Y=4980mm having excavation dimensions of 175mm long x 45mm wide x 24mm wide and at Y=5245mm having excavation dimensions of 180mm long x 45mm wide x 20mm deep. Both boat shape repair excavations defect removal MT were found acceptable by QC Steve Mc Connell. This QA performed the same test (MT) and noted same result. According to ABF QC, they will submit the excavation details including photographs to ABF/Caltrans and wait for the Request for Welding Repair (RWR) approval prior to commence repair welding.

At ESW location 'S' outside, ABF welder Devon Murphy was noted continuing to remove the remnants of the cut strong back along the ESW vertical weld joints that were used during welding. The welder was noted using carbon air arc gouging to remove the plates remnant and its weld. The work is still in progress.

All other related activities noted during the shift include wire wheel cleaning on weld cover surface of the ESW butt joint at S-044 location 'C' in preparation for the and setting ventilation and lighting system inside the four Tower Shafts and below the 13Meters diaphragm. Both activities were noted still ongoing at the end of the shift.



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 Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By: Lizardo, Joselito

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer