

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-026160**Date Inspected:** 23-Aug-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** John Pagliero**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 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-Repairs. The boat shape repair located at Y=6460mm was excavated to dimensions of 225mm long x 75mm wide x 40mm deep. The excavation was previously tested using Magnetic Particle Testing (MT) by ABF QC Fred Von Hoff and this QA with positive result. The repair excavation and the adjacent base metal was preheated and maintained to more than 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 135 amperes on a 1/8" diameter E7018H4R electrode. At the end of the shift, fill pass repair welding was still continuing and should remain tomorrow. The welder has programmed the Miller Proheat 35 Induction Heating System to hold the preheat of 204°C (400°F) for three hours and cool down at 66°C (150°F) per hour as recommended by ABF.

At ESW location 'W' outside, ABF welder Jeremy Dolman 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.

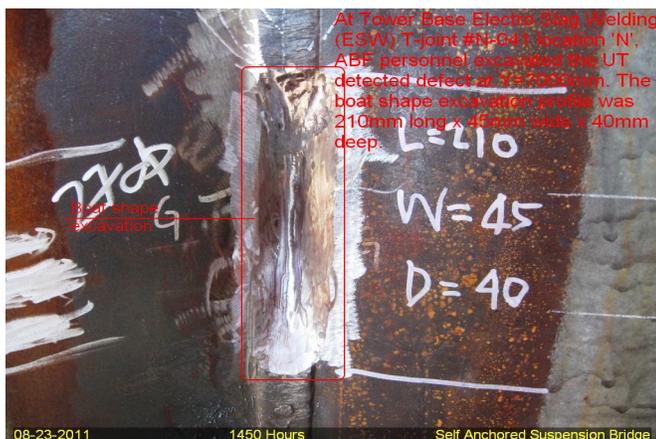
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The welder has moved to ESW T-joint #N-041 location and performed excavation on the UT detected defect of the ESW vertical weld. The welder was noted using carbon air arc gouging followed by die/disc grinder to make the excavation smooth. After the excavation was completed, the welder had asked ABF QC John Pagliero for VT/MT. Magnetic Particle Testing (MT) was performed by QC John Pagliero and verified by this QA with positive result. The boat shape repair excavation was located at Y=7000mm with profile dimensions of 210mm long x 45mm wide x 40mm deep. ABF QC John Pagliero has informed this QA that ABF will initiate the Repair Welding Request (RWR) and perform the repair once it gets the approval.

At ESW locations 'Q' and 'P' outside, ABF welder Rory Hogan was noted carbon arcing the radius of the previously cut sump block located at the bottom of the ESW butt joints. The radius is being cut to 100mm cope as required and to be ground smooth by other ABF personnel.

At ESW locations 'N' and 'W' outside, ABF personnel Devon Murphy was noted smooth grinding the radius of the previously cut sump block located at the bottom of the ESW butt joints. Devon Murphy was noted using disc and die grinder to make the surface of the radius smooth.



Summary of Conversations:

No significant conversation occurred today.

Comments

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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
