

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:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026262**Date Inspected:** 12-Sep-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 and Steve Mc Conn			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 S-044 location 'C', this QA randomly observed ABF welder Richard Garcia excavate the visually and Ultrasonic Testing (UT) detected defect at ESW welded T-joint using carbon air arc gouging. Prior to the excavation, the welder has preheated the defect location to more than 250°F using the propylene gas torch. During the excavation, the welder has noted linear indications which signified a lack of fusion defect. QC has performed the MT as the welder chase the extent of the indications. The repair excavation was located at Y=4855 and was having a final excavation dimensions of 75mm long x 15mm wide x 10mm deep that was ground smooth. ABF QC John Pagliero was noted performing the visual test (VT) and Magnetic Particle Testing (MT) on the excavation with positive result. This QA performed VT/MT verification on the defect removal and noted same result. After the excavation and testing on the defect removal, QC has informed this QA that this excavation and repair will not require Repair Welding Request (RWR) since it was a minor repair but will be documented thru Weld Repair Report (WRR).

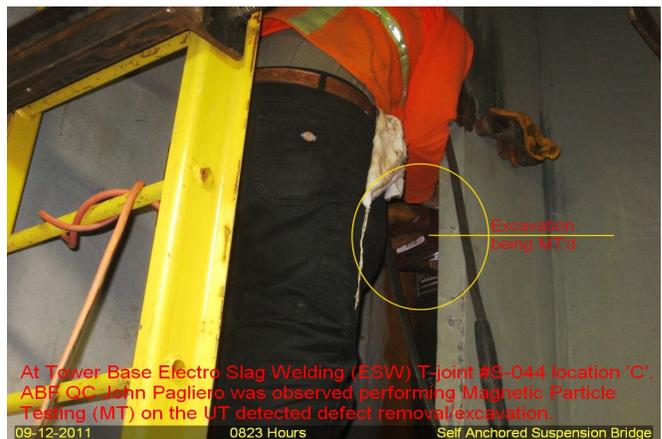
After the completion of the excavation of above mentioned ESW weld repair, this QA randomly ABF welder Richard Garcia perform 3G SMAW first time welding repair (R1) on the Ultrasonic Testing (UT) detected defect on the vertical weld of the ESW. The welder was observed welding in the 3G (vertical) position 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 located at Y=4855mm was excavated as mentioned

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above. The repair excavation and the adjacent base metal were preheated to more than 300°F using the propylene gas torch. During the shift, ABF QC John Pagliero was noted monitoring the welder. Measured welding parameter during welding was 130 amperes on a 1/8" diameter E7018H4R electrode. During the shift, repair welding was completed and the welder has moved to another UT detected defect location Y=300mm of the same ESW T-joint S-044 location 'C' that was previously excavated and tested.

At Tower Base Elevation Electro Slag Welding (ESW) T-joint S-044 location 'C', this QA randomly ABF welder Richard Garcia perform 3G SMAW welding repair due to UT detected defect. 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 excavation located at Y=300mm and having excavation dimensions of 100mm long x 40mm wide x 9mm deep was previously tested using Magnetic Particle Testing (MT) by ABF QC Steve Mc Connell and randomly verified by this QA with positive result. The repair excavations and the adjacent base metal were preheated to more than 300°F using the propylene gas torch. During the shift, ABF QC John Pagliero was noted monitoring the welder. Measured welding parameter during welding was 130 amperes on a 1/8" diameter E7018H4R electrode. At the end of the shift, repair welding was still continuing and should remain tomorrow.



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
