

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-026258**Date Inspected:** 09-Sep-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 S-041 location 'S' (inside), QA randomly observed ABF welder Rory Hogan perform 3G SMAW cover welding repair due to excessive grinding. 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 repairs at various locations were having a depth range of 3mm to 6mm. The excavations were previously tested using Magnetic Particle Testing (MT) by ABF QC Steve Mc Connell and 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 135 amperes on a 1/8" diameter E7018H4R electrode. At the end of the shift, repair welding was still continuing and should remain tomorrow.

At Tower Base Elevation Electro Slag Welding (ESW) T-joint E-041 location 'R' (inside), QA randomly observed Richard Garcia excavate the opposite side of the visually rejected defect from the outside but has remaining indications after 40mm deep excavation. During the shift, the welder has completely excavated and smooth ground the remaining indications. ABF QC Steve Mc Connell was noted performing MT on the remaining indications with positive results. QA verified the MT performed by QC with same result. The final excavation was located at Y=1400mm and having dimensions of 330mm long x 55mm wide x 20mm deep. Since it was already the end of

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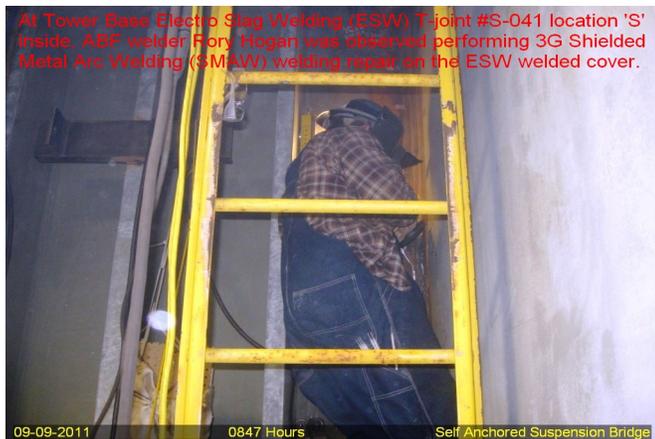
the shift, the welder informed this QA and ABF QC that the welding repair will be done Monday.

At Tower Base Elevation Electro Slag Welding (ESW) T-joint W-041 location 'W' (inside), QA randomly ABF welder Jeremy Dolman continuing to perform 3G SMAW cover welding repair due to excessive grinding. 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 excavations were 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 110 amperes on a 1/8" diameter E7018H4R electrode. At the end of the shift, repair welding was still continuing and should remain Monday.

At the request of Quality Control Field Supervisor, Bonifacio Daquinag, QA has randomly verified the QC MT of the ESW welding of four (4) various locations. The QA verification was performed to verify that the welding and the MT inspection performed by the QC inspector meet the requirements of the contract documents. At the conclusion of the QA verification it appeared that the two ESW weld joints and the QC inspection complied with the contract documents.

ESW Location Remarks

1. N-041 location 'N' (outside) 10% MT was performed by QA on the outside weld cover.
2. W-041 location 'W' (outside) 10% MT was performed by QA on the outside weld cover.



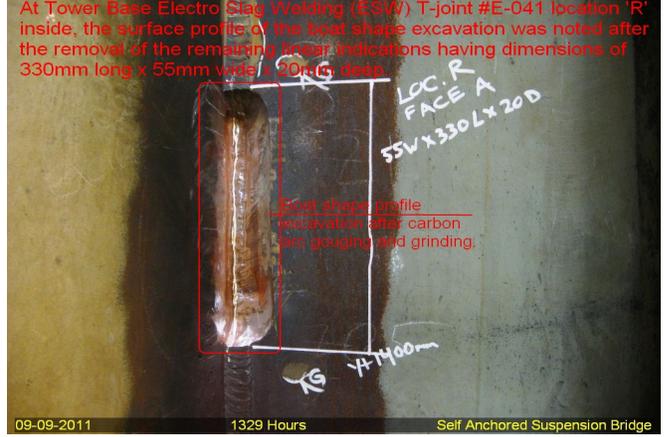
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At Tower Base Electro Slag Welding (ESW) T-joint #E-041 location 'S' outside, ABF QC Steve Mc Connell was observed performing Magnetic Particle Testing (MT) on the ground weld cover of the ESW.



At Tower Base Electro Slag Welding (ESW) T-joint #E-041 location 'R' inside, the surface profile of the boat shape excavation was noted after the removal of the remaining linear indications having dimensions of 330mm long x 55mm wide x 20mm deep.



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