

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-026427**Date Inspected:** 29-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 William Sherwood			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-joints W-042 location 'M' (face A) and S-042 location 'L' (face A), QA randomly ABF welder Richard Garcia continuing to perform 3G SMAW cover welding repair due to excessive grinding on the visually noted overlap. 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 was previously tested using Magnetic Particle Testing (MT) by ABF QC William Sherwood and randomly verified by this QA with positive result. 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 135 amperes on a 1/8" diameter E7018H4R electrode. At the end of the shift, the welder has finished one repair at location 'M' and still continuing on 'L' ESW weld location.

At Tower Base Elevation Electro Slag Welding (ESW) T-joint N-041 location 'N', QA randomly ABF welder Jeremy Dolman 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 repairs located at Y=9320mm was excavated to dimensions of 210mm long x 22mm wide x 12mm deep. The excavation was previously tested using Magnetic Particle

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Testing (MT) by ABF QC William Sherwood and verified by this QA with positive result. 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 William Sherwood was noted monitoring the welder. Measured welding parameter during welding was 120 amperes on a 1/8" diameter E7018H4R electrode. During the shift, repair welding was completed.

At Tower Base Elevation Electro Slag Welding (ESW) 80-100 transition butt joint N-043 location 'P', QA randomly ABF welder Xiao Jian Wan perform 3G SMAW first time welding repair (R1) on the Magnetic Particle Testing (MT) detected defect on the external 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 excavations were tested using Magnetic Particle Testing (MT) by ABF QC John Pagliero and this QA with positive result. 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. At the end of the shift, repair welding was still continuing which should remain tomorrow. The following Y locations were welded during the shift;

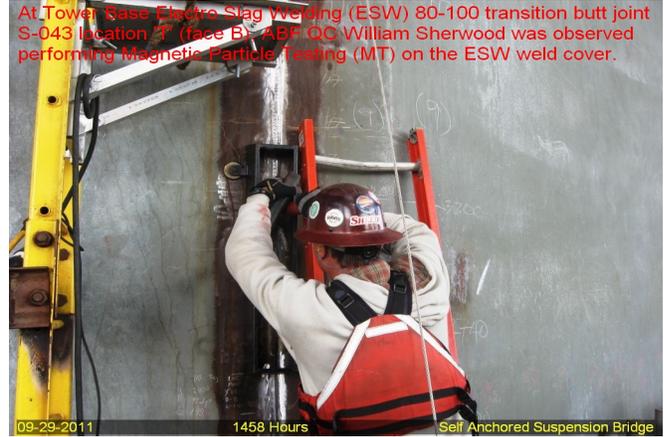
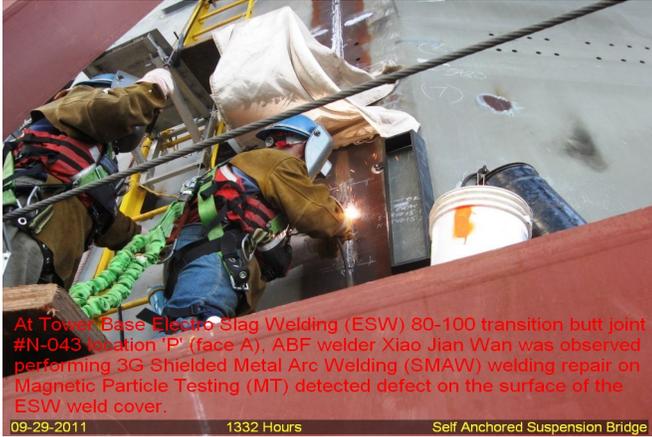
ESW Y-location(mm)	Dimensions (L x W x D)	Remarks
1. N-043 location 'P' 410-520	120mm x 10mm x 6mm	Completed
2. N-043 location 'P' 4130-4630	540mm x 15mm x 12mm (S)	Completed
3. N-043 location 'P' 4130-4630	540mm x 15mm x 5mm (N)	Completed
4. N-043 location 'P' 5530-5680	150mm x 15mm x 13mm (S)	Completed
5. N-043 location 'P' 5530-5680	150mm x 15mm x 5mm (N)	Completed

At Tower Base Electro Slag Welding (ESW) 80-100mm transition butt joint W-043 location 'V' (face B), ABF QC Jesse Cayabyab was observed performing Magnetic Particle Testing (MT). During the MT of the ESW weld cover, he noted a transverse linear indication that was located at Y=8710mm. ABF personnel have stopped the excavation pending approval from Caltrans to excavate further.



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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