

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

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-026241**Date Inspected:** 01-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

<b>CWI Name:</b>	John Pagliero and Steve Mc Conn			<b>CWI Present:</b>	Yes	No	
<b>Inspected CWI report:</b>	Yes	No	N/A	<b>Rod Oven in Use:</b>	Yes	No	N/A
<b>Electrode to specification:</b>	Yes	No	N/A	<b>Weld Procedures Followed:</b>	Yes	No	N/A
<b>Qualified Welders:</b>	Yes	No	N/A	<b>Verified Joint Fit-up:</b>	Yes	No	N/A
<b>Approved Drawings:</b>	Yes	No	N/A	<b>Approved WPS:</b>	Yes	No	N/A
				<b>Delayed / Cancelled:</b>	Yes	No	N/A
<b>Bridge No:</b>	34-0006			<b>Component:</b>	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 Electro Slag Welding (ESW) T-joints E-041 location 'R' and S-041 location 'S' outside, ABF welder Richard Garcia was noted removing the remnants of the strong back that were used during the ESW. The welder was using carbon air arc gouging to remove the remnants and was followed by disc/flapper grinder to make the surface smooth. After the smooth grinding by the welder, ABF QC John Pagliero was noted performing Magnetic Particle Testing (MT) on the remnants removal. The welder has started from the very top of the ESW and noted moving side to side between the two ESW weld joints moving his way to the bottom. The welder has finished four (4) remnants when he noted there was a visually rejected cover on location 'S' due to weld overlap where he excavated to sound metal and QC MT'd the excavation and welded it afterwards.

At Tower Base Electro Slag Welding (ESW) T-joint #S-041 location 'S' outside, QA randomly ABF welder Richard Garcia perform 3G SMAW welding repair 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 repair excavation located at Y=8540mm to Y=8660mm was excavated to dimensions of 70mm long x 25mm wide x 10mm deep. The excavation was tested using Magnetic Particle Testing (MT) by ABF QC John Pagliero and confirmed by this QA. The repair excavation and the adjacent base metal was preheated and maintained to more than 149°C (300°F) using propylene gas torch. During the shift, ABF

# WELDING INSPECTION REPORT

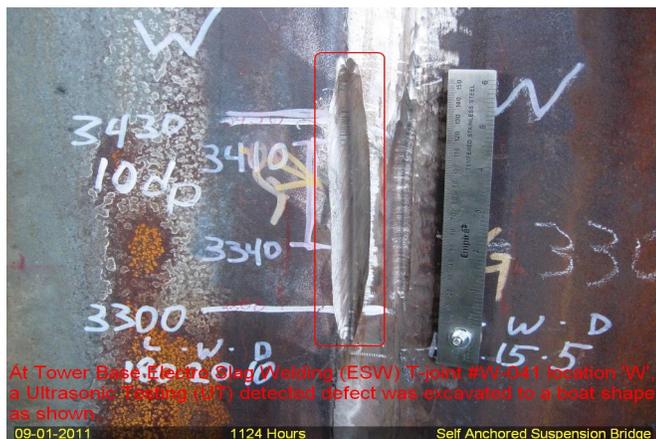
( Continued Page 2 of 3 )

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, welding repair on the weld cover of the ESW at location mentioned above was completed.

At Tower Base Electro Slag Welding (ESW) T-joint #W-041 location 'W' outside, ABF QC Steve Mc Connell was observed performing Magnetic Particle Testing (MT) on the excavated UT detected defect of the ESW welded joint. The result of the MT was positive and was verified by this QA with same result. The boat shape excavation was measured 180mm long x 20mm wide x 10mm deep and according to QC this has been made a Request for Welding Repair (RWR) and awaiting its approval.

Other welding related activities noted during the shift include the following;

1. ESW location 'W' (inside) – removal of the strong back remnants using carbon air arc gouging was noted in progress.
2. ESW locations 'B' and 'C' (inside center diaphragm) – smooth grinding of the cut and gouged radius of the sump block removal was noted in progress.
3. ESW location 'R' (inside) – grinding of the ESW weld cover defects as marked by QC during their VT was in progress.
4. ESW locations 'E', 'F', 'G' and 'H' (inside center diaphragm) – ABF QC VT/MT on the ESW weld cover after ABF grinding was in progress.



## 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.

---

---

# WELDING INSPECTION REPORT

*( Continued Page 3 of 3 )*

---

---

---

<b>Inspected By:</b>	Lizardo, Joselito	Quality Assurance Inspector
<b>Reviewed By:</b>	Levell, Bill	QA Reviewer

---